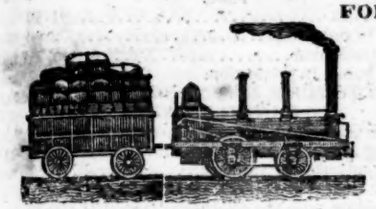
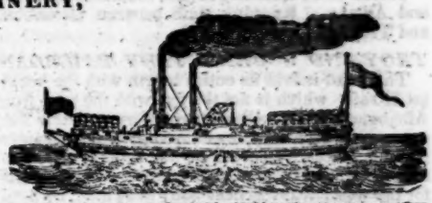
AMERICAN RAILROAD JOURNAL,

AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY, AND MINES.



ESTABLISHED 1831.



PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT FIVE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. II., No. 44] SATURDAY, OCTOBER 31, 1846. [WHOLE No. 541, VOL. XIX.

BOSTON AND PROVIDENCE RAILROAD. Passenger Notice. Summer Arrangement. On and after Monday, April 6, 1846, the Passenger Trains will run as follows:

For New York—Night Line, via Stonington. Leaves Boston every day, but Sunday, at 5 p.m.

Accommodation Trains, leave Boston at 7½ a.m. and 4 p.m., and Providence at 8 a.m. and 4½ p.m.

Dedham trains, leave Boston at 8 a.m. 12½ m., 3½ p.m., and 6½ p.m. Leave Dedham at 7 a.m. and 9½ a.m. and 2½ and 5½ p.m.

Stoughton trains, leave Boston at 11½ a.m. and 5½ p.m. Leave Stoughton at 7·20 a.m. and 3½ p.m.

All baggage at the risk of the owners thereof.

31 1y W. RAYMOND LEE, *Sup't.*

BRANCH RAILROAD and STAGES CONnecting with the Boston and Providence Railroad.

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

NORWICH AND WORCESTER RAILROAD. Summer Arrangement, commencing Monday, April 6, 1846.

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4½ p.m. Leave Worcester, at 10 a.m., and 4½ p.m.

☞ The morning Accommodation Trains from Norwich, and from Worcester, connect with the trains of the Boston, and Worcester and Western railroads each way.

The Evening Accommodation Train from Worcester connects with the 1½ p.m. train from Boston.

New York Train via Long Island Railroad:

Leave Allyn's Point for Boston, about 1 p.m., daily, except Sunday.

Leave Worcester for New York, about 10 a.m., stopping at Webster, Danielsonville, and Norwich.

New York Train via Steamboat—Leave Norwich for Boston, every morning, except Monday, on the arrival of the stamboat from New York, stopping at Norwich and Danielsonville.

Leave Worcester for New York, upon the arrival of the train from Boston, at about 4½ p.m., daily, except Sunday, stopping at Webster, Danielsonville and Norwich.

Freight Trains daily each way, except Sunday.—Special contracts will be made for cargoes, or large quanties of freight, on application to the superintendent.

☞ *Fares are Less when paid for Tickets than when paid in the Cars.* ☜

32 1y J W. STOWELL, Sup't.

BOSTON AND MAINE RAILROAD. Upper Route, Boston to Portland via, Reading, Andover, Haverhill, Exeter, Dover, Great Falls, South & North Berwick, Wells, Kennebunk and Saco.

Winter Arrangement, 1846-7.

On and after October 5th, 1846, Passenger Trains will leave daily, (Sundays excepted,) as follows:

Boston for Portland at 7½ a.m. and 2½ p.m.

Boston for Great Falls at 7½ a.m., 2½ and 3·25 p.m.

Boston for Haverhill at 7½ and 11½ a.m., 2½, 3·25 and 5 p.m.

Boston for Reading at 7½, and 11½ a.m., 2½, 3·25 5 and 6½ p.m.

Portland for Boston at 7½ a.m., and 3 p.m.

Great Falls for Boston at 6½ and 9½ a.m., and 4½ p.m.

Haverhill for Boston at 7½, 8½, and 11 a.m., and 3 and 6½ p.m.

Reading for Boston at 7, 8½ and 9½ a.m., 12 m., 1½, 4 and 7½ p.m.

The Depot in Boston is on Haymarket Square.

Passengers are not allowed to carry Baggage above **$50** in value, and that *personal* Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every **$500** additional value.

1y31 CHAS. MINOT, *Sup't.*

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.

On and after Friday, May 1st, 1846, the cars will run as follows:

Leave City Hall for Yorkville, Harlem and Morrianna, at 7, 8, 9, 10 and 11 a. m., and at 1, 2, 3 30, 4 30, 5, 6, and 6 30 p. m.

Leave City Hall for Fordham and Williams' Bridge, at 7, 10 and 11 a. m., and at 2, 3 30, 5, and 6 30 p. m.

Leave City Hall for Hunt's Bridge, Bronx, Tuckahoe, Hart's Corners and White Plains, at 7 and 10 a. m., and at 2 and 5 p. m.

Leave Harlem and Yorkville, at 7 10, 8 10, 9, 10 11 10 a. m., and at 12 40, 2, 3 10, 5 10, 5 30, 6 10' and 7 p. m.

Leave Williams' Bridge and Fordham, at 6 45, 7 45, and 10 45 a. m., and at 12 15, 2 45, 4 45, and 5 45 p. m.

Leave White Plains, at 7 and 10 a. m., and at 2 and 5 p. m.

The freight train will leave the City Hall at 1 o'clock, p. m., and leave White Plains at 1 o'clock in the morning.

On Sundays, the White Plains train will leave the City Hall at 7 a. m. and 5 30 p. m.; will leave White Plains at 7 a. m. and 6 p. m.

On Sundays, the Harlem and Williams Bridge trains wil be regulated according to the state of the weather. 1y18

SUMMER ARRANGEMENT.—NEW YORK AND ERIE RAILROAD LINE, from April 1st until further notice, will run daily (Sundays excepted) between the city of New York and Middletown, Goshen, and intermediate places, as follows:

FOR PASSENGERS—

Leave New York at 7 A.M. and 4 P.M.
" Middletown at 6½ A.M. and 5½ P.M.

FARE REDUCED to $1 25 to Middletown—way in proportion. Breakfast, supper and berths can be had on the steamboat.

FOR FREIGHT—

Leave New York at 5 P.M.
" Middletown at 12 M.

The names of the consignee and of the station where to be left, must be distinctly marked upon each article shipped. Freight not received after 5 P. M. in New York.

Apply to J. F. Clarkson, agent, at office corner of Duane and West sts. H. C. SEYMOUR, Sup't.

March 25th, 1846.

Stages run daily from Middletown, on the arrival of the afternoon train, to Milford, Carbondale, Honesdale, Montrose, Towanda, Owego, and West; also to Monticello, Windsor, Binghamton, Ithaca, etc., etc. Agent on board. 13 tf

BOSTON AND ALBANY.—WESTERN RAILROAD.—Fare Reduced.

1846..Spring Arrangement..1846

Commencing April 1st.

Passenger trains leave daily, Sundays excepted—

Boston	7½ p. m.	and 4 p. m.	for Albany.
Albany	6½ "	and 2½ "	for Boston.
Springfield	7 "	and 1 "	for Albany.
Springfield	7 "	and 1½ "	for Boston.

Boston, Albany and Troy:

Leave Boston at 7½ a. m., arrive at Springfield at 12 m., dine, leave at 1 p. m., and reach Albany at 6½ p. m.

Leave Boston at 4 p. m., arrive at Springfield at 8 p. m., lodge, leave next morning at 7, and arrive at Albany at 12½ m.

Leave Albany at 6½ a. m., arrive at Springfield at ½ m., dine, leave at 1½ p. m., and arrive at Boston 6½ p. m.

Leave Albany at 2½ p. m., arrive at Springfield at 8½ p. m., lodge, leave next morning at 7, and arrive at Boston at 12 m.

The trains of the Troy and Greenbush railroad connect with all the above trains at Greenbush.

Fare from Boston to Albany, $5; fare from Springfield to Boston or Albany, $2 75.

Merchandize trains run daily (Sundays excepted) between Boston, Albany, Troy, Hudson, Northampton, Hartford, etc.

For further information apply to C. A. Read, agent, 27 State street, Boston, or to S. Will, agent, Albany. JAMES BARNES,

Superintent and Engineer.

Western Railroad Office, Springfield, April 1, 1846.

TROY RAILROADS.—IMPORTANT NOTICE.—Troy and Greenbush Railroad, forming a continuous track from Boston to Buffalo and Saratoga Springs.

This road is new, and laid with the heaviest iron H rail. Trains will always be run on this road connecting at Greenbush each way with the trains to and from *Boston* and intermediate places, leaving Greenbush daily at 1¼ p.m. and 6 p.m., or on arrival of the trains from Boston; leave Troy at 7¼ a.m. and 4¼ p.m., or to connect with trains to *Boston*

Trains also run hourly on this road between Troy and Albany. Running time between Greenbush and Troy, 15 minutes.

TROY AND SCHENECTADY RAILROAD.

This road is laid its entire length with the heaviest H rail which is not the fact with the road from Albany. Trains will always be run on this road connecting each way, to and from Buffalo and intermediate places. Leave Troy for Buffalo at 7¼ a.m. and 1 p.m. and 6¼ p.m., or to connect with the trains for the west; leave Schenectady at 2¼ a.m., 8¼ a.m., 1 p.m. and 3¼ p.m., or on arrival of the trains from Buffalo and intermediate places.

TROY AND SARATOGA RAILROAD.

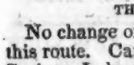
THE ONLY DIRECT ROUTE.

No change of passenger, baggage or other cars on this route. Cars leave Troy for Ballston, Saratoga Springs, Lake George and White Hall at 7¼ a.m., (arriving one hour in advance of the train from Albany,) and at 3¼ p.m. Returning, leave Saratoga at 9 a.m. and 3¼ p.m., (reaching Troy in time for the evening boats to New York.) Cars also leave Troy for the Burrough at 3¼ p.m. and 7 p.m., connecting with packet boats for the north. This takes passengers from New York and Boston to Montreal in 44 hours.

N.B. Travellers will find the routes through Troy most convenient and economical, and as expeditious as any other. The steamboats to and from New York land within a few steps of the railroad office, and passengers are taken up and landed by the different railroad lines at the doors of principal hotels, thus saving all necessity for, and annoyance from, hack drivers, cabmen, runners, etc.

Aug. 3, 1846. 1y 32

THE BEST RAILROAD ROUTE TO THE Lake and Buffalo, from Cincinnati.



Take Cars to Xenia, 65 miles; take Stage to Mansfield, 88 miles; thence by Cars to Sandusky, 56 miles to the Lake; thence Steamboat to Buffalo, 230 miles.

Fare from Cincinnati to Sandusky	$8 00
" " Sandusky to Buffalo, Cabin	6 00
" " " " " Steerage	4 50

Fare by this route, although the cheapest across the state, will be reduced in a short time, railroad lengthened, and speed increased.

Leave Cincinnati in the morning, arrive at Columbus at night.

Leave Columbus in the morning, arrive at Sandusky same day.

Leave Sandusky, by Boat, in the morning, arrive at Buffalo next morning in time for the Cars north and east for Niagara Falls, Canada, Saratoga Springs, Troy, Albany, Boston, New York, Washington, or Philadelphia.

Passengers should not omit to pay their fare through from Cincinnati to Sandusky, or from Columbus to Sandusky via Mansfield; as this route is the only one that secures 56 miles [this road is run over in 2h. 50m.,] most railroad which is new, and is the shortest, cheapest and most expeditious across the state.

Fares on the New York railroads are about to be reduced.

B. HIGGINS, *Sup't, etc.*
M. & S. C. R. R. Co.

Sandusky, Ohio.

RAILROAD IRON.—THE "MONTOUR Iron Company," Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO., *Agents.*

Corner of Cedar and Greenwich Sts. 43 1y

NEW RAILROAD ROUTE FROM BUFfalo to Cincinnati.

Passengers destined for Columbus and Cincinnati, O., Louisville, Ky., St. Louis, Mo., Memphis, Tenn., Vicksburg, Natches, New Orleans, and all intermediate ports, will find a new, and the most expeditious and comfortable Route, by taking Steamboats at Buffalo, landing at Sandusky City, Ohio, distance.....230 miles.

From thence by Cars, over the Mansfield Railroad which is new and just opened [laid with heavy Iron,] to Mansfield, distance	56 "
Thence by Stage via Columbus to Xenia over gravel and Macadamized Road, (the best in the state,) in new coaches, distance	88 "
Thence, over the Little Miami Railroad, from Xenia to Cincinnati, distance	65 "

TIME.

From Buffalo to Sandusky	24 hours.
Leave Sandusky 5 a.m. to Columbus	14 "
From Columbus to Cincinnati	15 "

Or say 30 hours from Sandusky to Cincinnati over this route, including delays.

FARE.

From Buffalo to Sandusky, Cabin	$6 00
" " " " Steerage	3 00
" Sandusky to Columbus	4 50
" " *through* to Cincinnati	8 00

Passengers should not omit to pay their fare *through* from Sandusky City to Cincinnati and take receipts availing themselves of the benefit of a contract existing between the said Railroad and Stage Co's, securing 121 miles travel by good Railroad and 88 miles by Stage, in crossing from Lake Erie to the Ohio river, in the space of 30 hours.

Passengers destined for St. Louis, or any point below on the Mississippi, will save by taking this route, from 4 to 6 days time and travel, and nearly half the expense, over the Chicago and Peoria route to the above places.

Fare by this route, although the cheapest, will in a short time be reduced, Railroad lengthened, and speed increased.

B. HIGGINS, *Sup't, etc.*
M. & S. C. R. R. Co.

Sandusky City, Ohio.

BALTIMORE AND OHIO RAILROAD. MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7¼ and

Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5¼ P. M. Fare between those points $7, and 4 cents per mile for less distances. Fare through to Wheeling $11 and time about 36 hours, to Pittsburgh $10, and time about 32 hours. Through tickets from Philadelphia to Wheeling $13, to Pittsburgh $12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5¼ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare $1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13y1

THE SUBSCRIBER IS PREPARED TO execute at the Trenton Iron Works, orders for Railroad Iron of any required pattern, and warranted equal in every respect in point of quality to the best American or imported Rails. Also on hand and made to order, Bar Iron, Braziers' and Wire Rods, etc., etc.

PETER COOPER, 17 Burling Slip.

1y10 New York.

BALTIMORE AND SUSQUEHANNA Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger

trains run daily, except Sunday, as follows:

Leaves Baltimore at	9 a.m. and 3¼ p.m.
Arrives at	9 a.m. and 6¼ p.m.
Leaves York at	5 a.m. and 3 p.m.
Arrives at	12¼ p.m. and 8 p.m.
Leaves York for Columbia at	1¼ p.m. and 8 a.m.
Leaves Columbia for York at	8 a.m. and 2 p.m.

FARE.

Fare to York	$1 50
" Wrightsville	2 00
" Columbia	2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg	$9
Or via Lancaster by railroad	10
Through tickets to Harrisburg or Gettysburg	3

In connection with the afternoon train at 3¼ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at.....5¼ p.m.
Returning, leaves Owing's Mills at.....7 a.m.

D. C. H. BORDLEY, *Sup't.*
31 1y Ticket Office, 63 North st.

LEXINGTON AND OHIO RAILROAD. Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare $1·25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and ma. 9. from Frankfort, other hours as above.

351y

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston,

on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily	$26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia	22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

1y25 JOHN KING, Jr, *Agent.*

CENTRAL RAILROAD—FROM SAVANnah to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, $8 00. Freight—

On weight goods generally	50 cts. per hundred.
On measurement goods	13 cts. per cubic ft.
On brls. wet (except molasses and oil)	$1 50 per barrel.
On brls. dry (except lime)	80 cts. per barrel.
On iron in pigs or bars, castings for mills, and unboxed machinery	40 cts. per hundred.
On hhds. and pipes of liquor, not over 120 gallons	$5 00 per hhd.
On molasses and oil	$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE,
y40 Gen'l. Sup't. Transportation.

MANUFACTURE OF PATENT WIRE Rope and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by JOHN A. ROEBLING, *Civil Engineer*, Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railrord, has now run 4 seasons, and is still in good condition. 2v19 1y

CENTRAL AND MACON AND WESTERN Railroads, Ga.—These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

	Miles.
Savannah to Macon—Central Railroad	190
Macon to Atlanta—Macon and Western	101
Atlanta to Oothcaloga—Western and Atlantic	80

Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

	To Atlanta.	To Oothcaloga.
On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings	$0 50	$0 75
Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones	0 50	0 62½
On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot	0 20	0 26
Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot	0 20 pr. 100lbs.	35
Crockery, per cubic foot	0 15 " "	35
Molasses and Oil, per hhd., (smaller casks in proportion)	9 00	12 50
Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each	1 25	1 50
Ploughs, (small,) and Wheelbarrows	0 80	1 05
Salt, per Liverpool Sack	0 70	0 95

Passage—Savannah to Atlanta, $10; Children, under 12 years of age, half price, Savannah to Macon, $7.

☞ Goods consigned to the subscriber will be forwarded free of Commissions.

☞ Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, *Forwarding Agent, C. R. R.*
Savannah, Aug. 15th, 1846. 1y34

LITTLE MIAMI RAILROAD.—1846.— Summer Arrangement.

Two passenger trains daily.

On and after Tuesday, May 5th, until further notice, two passenger trains will be run—leaving Cincinnati daily (Sundays excepted) at 9 a. m. and 1½ p. m. Returning, will leave Xenia at 5 o'clock 50 min. a. m., and 2 o'clock 40 min. p. m.

On Sundays, but one train will be run—leaving Cincinnati at 9, and Xenia at 5 50 min. a. m.

Both trains connect with Neil, Moore & Co.'s daily line of stages to Columbus, Zanesville, Wheeling, Cleveland, Sandusky City and Springfield.

Tickets may be procured at the depot on East Front street.

The company will not be responsible for baggage beyond fifty dollars in value, unless the same is returned to the conductor or agent, and freight paid at the rate of a passage for every $500 in value above that amount.

W. H. CLEMENT,
19 Superintendent.

GREAT SOUTHERN MAIL LINE! VIA Washington city, Richmond, Petersburg, Weldon and Charleston, S. C., direct to New Orleans. The only Line which carries the Great Southern Mail, and Twenty-four Hours in advance of Bay Line, leaving Baltimore same day.

Passengers leaving New York at 4½ P.M., Philadelphia at 10 P.M., and Baltimore at 6½ A.M., proceed without delay at any point, by this line, reaching Richmond in *eleven*, Petersburg in *thirteen and a half hours*, and Charleston, S. C., in *two days* from Baltimore.

Fare from Baltimore to Charleston.....$21 00
" " " Richmond..... 6 60

For Tickets, or further information, apply at the *Southern Ticket Office*, adjoining the *Washington Railroad Office*, Pratt street, Baltimore, to
1y14 STOCTON & FALLS, Agents.

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES. AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO OOTHCALOGA, 80 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 388 miles in length, from Charleston to Oothcaloga on the Oostenaula River, in Cass Co., Georgia.

RATES OF FREIGHT.		Between Augusta and Oothcaloga. 250 miles.	Between Charleston and Oothcaloga. 386 miles.
1st class.	Boxes of Hats, Bonnets, and Furnature, per cubic foot	$0 16	$0 25
2d class.	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	0 90	1 40
3d class.	Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Bar and Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 55	0 75
4th class.	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Feathers, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc	0 37½	0 62½
	Cotton, per 100 lbs	0 45	0 65
	Molasses, per hogshead	8 50	13 50
	" " barrel	2 00	3 25
	Salt per bushel	0 17	
	Salt per Liverpool sack		95
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows	0 75	1 37

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight may be paid at Augusta, Atlanta, or Oothcaloga.

J. EDGAR THOMSON,
Ch. Eng. and Gen. Agent.
Augusta, Sept. 2d, 1846. *44 1y

THE WESTERN AND ATLANTIC Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tuscumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.
Atlanta, Georgia, April 16th, 1846. 1y1

TO RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,
a45 N. E. cor. 12th and Market sts., Philad., Pa.

ATLANTIC AND ST. LAWRENCE RAIL Road. Notice to Contractors. Proposals will be received at the office of the Atlantic and St Lawrence Railroad Company, in this city, from the 19th to the 24th October instant, inclusive, for the Grading, Masonry and Bridging of the second division of the road, extending from the termination of the first division, near the west bank of Royall's River, in North Yarmouth, to the Old Danville road, so called, a distance of about sixteen miles.

Also for the erection and completion of a pile bridge across the outlet of Back Cove, at Portland.

Plans, Profiles and Specifications will be exhibited, and the requisite information given at the engineer's office, in Portland, on and after the 20th of this month.

Persons offering to contract for the work, or any part thereof, who are unknown to the undersigned, or to the directors, will be required to accompany their proposals with references as to character and ability; and in all cases where any proposals shall be accepted, and a contract entered into, the Contractor will be required to give bonds for the faithful completion of his contract, according to the terms agreed on.

WM. P. PREBLE,
President Atlantic and St. Lawrence Railroad.
A. C. MORTON, Chief Engineer.
Portland, October 7, 1846. 2t42

TO IRONMASTERS.—THE UNDERSIGNED is now prepared to sell or lease the valuable seat for Iron works, known as the "Horse Shoe Bend" of the Merrimac River, together with several hundred acres of Iron Ore of a superior quality, in the immediate vicinity. The Ore lies in inexhaustible beds on each side of the River, (based some on sandstone and some on limestone,) and is a brown Oxide, the principal beds known as "Pipe Ore."—The beds are from five to thirty feet in thickness, from one to three hundred yards in breadth, and from one quarter to one mile in length. The ore accurs in distinct masses of from one to five hundred cubic feet in size, is connected with Yellow Ochre, and in point of *quantity* and *quality* is believed to be not inferior to any in the state. The distance of the Ore from the Bend is from one-fourth to three miles, and the cost of mining and transporting it to the furnace from the farthest beds, will not exceed sixty or seventy cents per ton.

The lands are thickly timbered with Oak, Hickory, Ash, etc., and when cleared off are fine for agricultural purposes. The distance around the Bend of the River is four miles, and the amount of natural fall in that distance is nine feet, to be made available by cutting a race three hundred yards in length across the Narrows, through which, if wanted, the whole River may be drawn by increasing the size of the race. Its situation is three miles below the Virginia Mines in Franklin Co., Mo., sixteen miles south of "South Point," on the Missouri River, and thirty-two miles west of a good shipping point on the Mississippi, from which latter the Merrimac River is navigable to the Virginia mines, and above for keel boats, batteaux, and other light craft, for more months in the year than the Ohio.

This water power, from its great extent and cheapness over any other now in use, must necessarily draw to it the smelting of those rich Ores of Copper and Lead which recent discoveries have shown to be so abundant in this region.

The wants of the vicinity require the erection of good grist mills; also, a large and profitable business can be done with saw mills, the material for lumber being varied, rich and extensive.

Large forests of Yellow Pine exist on the head of the Merrimac River, which can be easily floated down to the Bend, and from that point the rafts of lumber, can pass out to the Mississippi in any season af the year. The property is offered very low, as will be apparent to any one examining the same. Titles amply guarantied.

4t41] FERNANDO A. EVANS.
Virginia Mines, Franklin Co., Mo., Sept. 1846.

RAILROAD IRON.—1000 TONS HEAVY H Railroad Iron, 60 lbs. per lineal yard, expected to arrive within the next 30 days. Apply to

DAVIS, BROOKS & CO.,
October 9. [1042] 68 Broad St.

GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1¼ in. to 2¼ in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions. 1y1

VALUABLE PROPERTY ON THE MILL Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 fe. with lathes, work benches,

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 51x25 feet.

Also—A lot of land on the canal, west side o Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

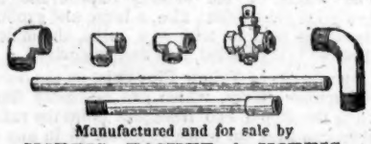
For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia. ja45

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ¼ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by

MORRIS, TASKER & MORRIS.

Warehouse S. E. Corner of Third & Walnut Streets,

PHILADELPHIA.

RAILROAD IRON.—THE NEW JERSEY Iron Company, Boonton, N. J., are now preparing to make Railroad Bars, and are ready to take orders or make contracts for Rails, deliverable after the first of December next. Apply to

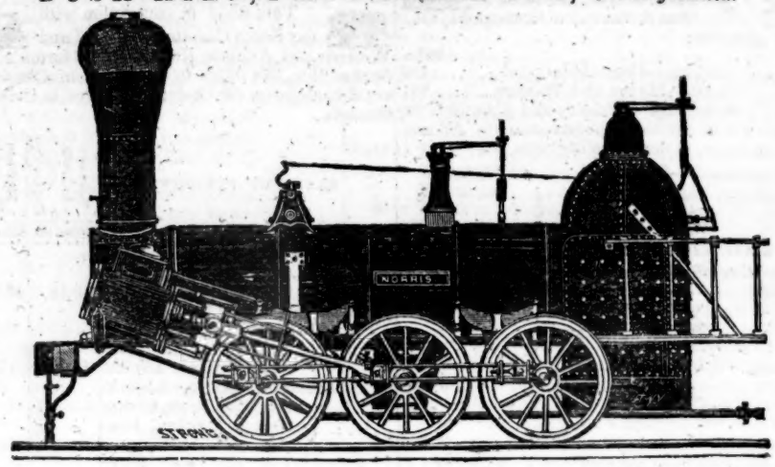
FULLER & BROWN, Agent,

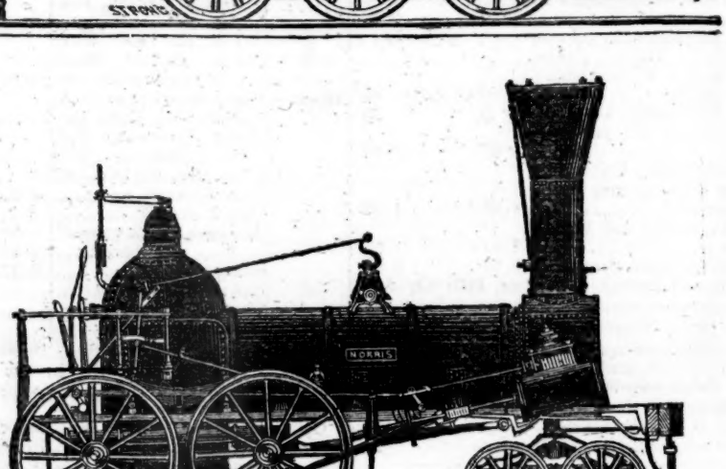
No. 139 Greenwich, corner of Cedar street.

September 18, 1846. 10t39

NORRIS' LOCOMOTIVE WORKS.

BUSH HILL, PHILADELPHIA, Pennsylvania.





MANUFACTURE their Patent 6Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15	inches	Diameter of	Cylinder,	× 20	inches	Stroke.
"	2,	14	"	"	"	× 24	"	"
"	3,	14½	"	"	"	× 20	"	"
"	4,	12½	"	"	"	× 20	"	"
"	5,	11½	"	"	"	× 20	"	"
"	6,	10½	"	"	"	× 18	"	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives & Tenders and Cars

NORRIS, BROTHERS.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. ANDREW C. GRAY,

a45 President of the Newcastle Manuf. Co.

RAILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by A. & G. RALSTON

Mar. 20tf 4 South Front St., Philadelphia.

KEARNEY FIRE BRICK. F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, Peter Cooper, Murdock, Leavirt & Co. } New York.

J. Triplett & Son, Richmond, Va.

J. R. Anderson, Tredegar Iron Works, Richmond, Va.

J. Patton, Jr. Colwell & Co. } Philadelphia, Pa.

J. M. L. & W. H. Scovill, Waterbury, Con.

N. E. Screw Co. Eagle Screw Co. } Provicence, R. I.

William Parker, Supt. Bost. and Worc. R. R.

New Jersey Malleable Iron Co., Newark, N. J.

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25,000 to 30,000 made weekly. 35 1

Mineral Lands of Lake Superior.
From the Montreal Herald,

We have been favored with the report of a geological survey of the mineral lands on lake Superior, belonging to the Boston and Pittsburgh copper mining company, by Professor Shepherd. As as present lake Superior is occupying a large share of the attention of many of our citizens, anything reliable pertaining to this important part of the country, will doubtless be acceptable and interesting to our readers. We are the more pleased with the report, as it is written by one whose scientific attainments and practical knowledge of the subject, as well as thorough integrity of character, enable us to place the utmost reliance upon his statements.

The document is ably written, and drawn up with a degree of accuracy and care seldom met with in productions of the kind; and, although it refers solely to the south shore, still Mr. Shepherd's remarks apply equally to the north or British side; in fact, the recent developments of the immense mineral wealth of the latter district, by the explorations of the Montreal mining company, prove it to be equal, if not superior, to the south side, while the fine harbors, rivers, etc., afford far superior facilities for obtaining the ore. We expect ere long to see this (to be) Cornwall of Canada, occupied with a thriving, busy population, and increased employment given to our shipping in transportation of ores and supplies. We give the following interesting extracts from this able report:—

It must be evident to the sagacious observer, that the period has already arrived when the mines of the United States are becoming to its present population, what the most select and fertile soil was to the first settlers, namely, the foundation of permanent wealth to the projectors and their children.

As an instance of this, men of middle age can well remember when the anthracite coal lands of Pennsylvania could all have been purchased for a trifle; and yet these same lands, so recently esteemed worthless, have sent two millions of tons of coal to market the present year, and have yet in store vast deposits of the same fuel, to give warmth, illumination, and motive power to generations yet unborn.

What is true of the coal, is also true respecting the iron banks of central and western Pennsylvania, which now enable the city of Pittsburg alone to manufacture more iron than all Great Britain at the close of the American revolution. The same remark will apply also to the great deposit of salt and lead west of the Alleghenies. Why should the land be worth one thousand dollars an acre in the valley of Kanawha, except for its mineral value? Such is the fact. Why may we not, then, in the length and breadth of our extensive country, including nearly every variety of rock formation, reasonably expect to find deposits of copper, which shall ere long become to the United States what Cornwall is to England, and what the Ural is to Russia—the centre of prodigious enterprize, and the source of individual and inexhaustible national wealth?

There is good evidence to believe that such a region is now opening on the southern shore of lake Superior.

Among the notices of the principal copper mines throughout the world, the following of Serade Marao is interesting, as showing the extent of mining operations in the days of the Romans:

In the granite formations of the Serade Marao, in the northern part of Portugal, may be seen veins of copper pyrites, malachite and other metals, with immense excavations, supposed to have been made by the Romans; the largest cut through solid rock being a mile and a half in circumference, and upwards of five hundred feet deep; measuring at the bottom 2,400 feet by 1,400. All the works are on the grandest scale, and many subterranean passages pierce the mountain like a labyrinth. * * *

For the last ten years, the Island of Cuba has been noted for copper. The rock formation, on penetrating the copper region, (as reported by Richard C. Taylor, Esq.,) consists of belts and beds of metamorphic rocks, having a magnesian base, comprising trap, greenstone, serpentine, diorite, hypersthene, porphyry and diallage. To these may be added ferruginous opal, jasper, chalcedony, quartz, and conglomerate, with occasional ridges of limestone. The copper beds or veins are found principally in stratified serpentine, lying between and running parallel with the rocky strata, and consequently of the same age as the rocks themselves. The lodes, says Mr. Taylor, have regular walks, containing much silicate and carbonate of magnesia, and having polished sides or surfaces. Their prevailing course is E. N. E., and the average dip to the south is 65 degrees. The most prominent ores are the silicates, the oxides and the sulphurets. Native copper is not unfrequent; but not lower than thirty yards from the outcrop. In the mine of San Fernando it occurs in masses from 10 to 200 lbs. weight.

The most important of the Cuba mines are said to be those of the Cobre association. The Royal Santiago, San Jose de Cobre, San Fernando, Socorro, Olivo, San Augustin, Prosperidad, Santa Isabel, San Nicholas, Perseverancia, Buena Isabela, Loma de los tibos, and Sahana Vieja. A new mineral district is beginning to be developed in Bayatavo, near Neuvitas, which is highly promising. From the above description, any one familiar with the copper region of lake Superior, will perceive at once the great resemblance, except that on lake Superior the veins or lodes cut the strata instead of running parallel with it.

It is reported by the New York proposed smelting company, that the value of copper ore received in England from the island of Cuba, from June, 1844, to June, 1845, will probably amount to about $8,000,000, and that the product of the mines is steadily increasing. Similar to the island of Cuba is the famous island of Mednoi, or copper island of the Russians; so remarkable for having native copper washed up upon its shores. But notwithstanding the valuable deposits of copper in Sumatra and Borneo, the Altia and Ural chains of Asiatic Russia is surpassed by no portion of the globe, except Cornwall, in affording supplies of this useful metal. A bed of copper ore is described by Wilson, in his history of the Russian mountains, vol. iii, p. 518, as extending from the river Kiren to the river Læna, a distance of nearly 700 miles, through a sandy and calcareous gang.

* * * * *

In 1779, the 229 foundries established there produced 7,750,000 pounds of copper.

Notwithstanding this astonishing production of copper in the Urals, more than sixty years ago, and its annual increase, with the addition of the splendid discoveries of gold and platinum, in the district of Zlatoust; still is falls far below the mines of Great Britain and of Ireland.

With respect to the general produce of the mines of the various countries of Europe, M. Verlet has formed the following comparative table, (general and statistical review of metallurgy, 1837.) taking Great Britain for unity:

Great Britain 1; Russia and Poland, 2-7; France, 1-4; Austria, 2 13; Spain, 1-8; Prussia, 1-9; Sweden, 2-19; Hartz, 1-12; Tuscany, 1-31; Bavaria, 1-33; Saxony, 1-34; Piedmont and Savoy, 1-38; Denmark, 1-49; Norway, 1-55.

The price paid for the raw ores of copper in Cornwall and Wales, by seven companies alone, for the year commencing June, 1843, and ending June, 1844, is reported to be upwards of 1,697,000 pounds sterling, or more than $8,220,000.

Many have denied, and even some intelligent Cornishmen, that there is any resemblance between lake Superior formation and that of Devon and Cornwall. But if they will give themselves a little more time for careful inspection, and patiently penetrate the interior, in my opinion they will not fail to discover the killas, gossan and elvan of Cornwall and Devon, the granite of Godolphin, Tregoning, North Downs and Treskerby, the trap of Buckjustleigh, the green stone of Beerah and Comb Hill, the ash altered slates of Dartmoor, and the ash trappean conglomerate of Tavistock and Brent Tor. There, too, may they find the serpentine and diabase of Cuba, the chlorite, diorite, serpentine, trap and sand stone of the Ural, and lastly, on location No. 5, the predite of Orange river, richly stored with silver and copper, together with the dysclasite, so rare, and interesting to Sir David Brewster, from its polarizing light in all directions.

It appears, then, from the above facts, that the lake Superior copper region does not suffer in comparison with the best mines yet discovered on the globe. On the other hand, it is clothed with such strong characteristic, exhibits such surprising magnetic intensity, and such positive improvement whenever mining is judiciously prosecuted, that, from an honest conviction, we are obliged to believe it altogether equal, if not superior, to either Cuba, Cornwall or the Ural. If so, it will serve as the foundation of permanent wealth for ourselves and our children. And all we have to do is to see that the mines are worked with *skill and economy*. For be assured, the

lake Superior mines, as a general thing, are not going to fail for want of copper, or for the want of silver in the veins. If they fail, it will be only for the want of *capital*, or from capital *misapplied*. Let no one, however, suppose that he can purchase a few shares of stock in a company, and in a few weeks, or a few months, rush into a fortune. He must in the exercise of good common sense, expect to sow before he can reap; and to allow time for the seed to germinate; and then time for the blade; and then for the ear; before he obtains a harvest of full corn in the ear. He must recollect that the country on lake Superior is yet covered with a multitude of Indians, and a vast primeval forest; so that every substantial article of provision must be transported hither; that the entrance to this great inland sea is blocked up by a cataract, one mile in length: so that it will be one or two years before this construction, (which affords available water power nearly equal to Niagara,) will be obviated by a broad and deep ship canal; that the same length of time will be required to open roads, and bring into requisition hydraulic, steam, as well as horse power, as additional facilities for working the mines. When cargoes of provisions and all needful supplies can be cheaply freighted from Buffalo, Cleveland and Detroit without transhipment; and in return take copper, fish, lumber, etc., to Buffalo, or tide waters, by adopting the route of the Welland canal. Then may he be able to reap a plentiful harvest, from a comparative small amount of seed, or by being the owner of a few shares of stock, judiciously managed by some responsible and enterprizing mining company.

When American ingenuity shall have been fully directed to the working of mines, the present high price of labor will be overcome by the skilful application of machinery; just as it is in ginning cotton, and making pins and making clocks. Not long since, fifty tons of iron were purchased at once in New York, and all to make clock weights, for clocks to be sent to England. So in pin making; one woman in Connecticut performs the labor of sixty persons in England. Thus will it be found in mining, that, in all open excavations and proving of veins, etc., Scovill's drilling machine, with the aid of two or three horses, will do the work of one hundred men. And even in running adits and levels under ground, the same machine may be so adapted, that a blind horse, upon a single inclined plane, or endless chain, will execute the work of twelve or twenty industrious German miners. So also in regard to the reduction of the ores of copper. Notwithstanding the experience of centuries at Swansea and in Cornwall, the total ignorance of almost everything relating to the sciences of geology, and above all of chemistry, in the conductors of mines, and their agents, (remarks of Wm. Philips on veins of Cornwall geological transactions, vol. ii,) it is not only matter of regret, but it can scarcely be doubted is also the cause of much loss to the adventurers in mines, to the lords of the soil, and the buyers of the ore; if a spirit of inquiry had existed, which some knowledge of the sciences could not have failed to produce, much cobalt would not have been thrown away on the heaps of Dolcouth, and some other mines, nor would bismuth, in Huel Sparnon, have been mistaken for cobalt, nor would the roads have been mended with copper ore, nor would the ponderous ore, which contained silver in the Herland mine, have been left to the chance that discovered its value. H. T. De La Beche remarks, in his Economic Geology, p. 595, that "chemistry has as yet made little progress among the assayers of Cornwall; the mode of assaying frequently being the same with that given by Price, sixty years since." And, according to M. Strom, state officer of mines in Norway, the slags thrown away at the copper mines at Swansea, and taken indiscriminately for examination, contain 30 per cent. more copper than the average slag at Roros in Norway. This goes to show that there is yet room for improvement in this most important branch.

The remainder of the report is occupied with a particular description of the mines and lands, belonging to the company. The latter are described as being covered with a heavy forest of pines, firs, hemlocks, oaks, maples and cedars, and as being excellent for cultivation. Villages appear to have sprung up on each of the several locations with an astonishing rapidity.

Native copper is found in the conglomerate along the shore of the harbor at Fort William. In the course of last summer, a mass was dug up within the walls of the garrison weighing, as I was informed, several pounds. This was in conglomerate, cemented with carbonic of lime. In what is called the "Wallace vien," eleven inches and upwards in diameter, I found native copper associated with lanmonite and beautiful crystals of analcime. The specimens which I subjected to careful washing, yielded at different times upwards of 30 per cent. of pure metallic copper. This vein has not been explored, except by two slight cuts to the depth of ten or fifteen feet, yet it is deserving of great attention. Near the native copper last named, is found also the red oxide of copper, finely crystalized in octohedral crystals, imbedded in a soft aluminous earth of a dull white color. This is the richest of all ores of copper yielding from 85 to 90 per cent. The whole appearance of the vein is favorable, and should be investigated without delay. More or less of black oxide is found in the above vein, but its main deposit is a few yards eastward, in a vein running nearly north and south, and varying from a few inches to more than one foot in thickness. This is certainly the most interesting of all the ores of copper, both on account of its richness and easy reduction. Its specific gravity is 5·50, it is easily mined, and yields readily about 70 per cent. of fine copper. So far as history goes, this ore is peculiar to this location. No other deposit of any importance having been, as yet, discovered on lake Superior, or even throughout the whole range of the mineral kingdom. Two shafts have been sunk, five feet by seven, on the last mentioned vein.—One to the depth of about 45 feet, the other to the depth of about 60 feet. Upwards of 20,000 pounds of this excellent ore were raised from the former shaft during the month of August last. The vein, as seen beneath the surface consisting *entirely* of this compact peroxide of copper, was about one foot in diameter, and descending from the bottom of the shaft to an unknown depth. The latter shaft, which slightly yielded black oxide on the surface, had every appearance of opening into a rich vein of this excellent ore, when I last saw it, in the month of October. There are two or three parallel veins, eastward of the above, as yet unexplored.

Many bowlders of black oxide have been discovered in the immediate vicinity of these veins, and also within the walls of the fort, and even traced so far in the garrison lake as to leave little doubt that this extraordinary ore extends into the high hill on the opposite side. In order to ascertain so desirable a fact, an adit was driven into the hill, by the advice of Capt. Matthew Staples, conductor of the mining operations at Copper Harbor, and I had the unspeakable satisfaction of seeing the black oxide make its appearance in this opening before I left Copper Harbor. In a recent letter from the vigilant superintendent, Dr. Wm. Pettit, I am informed that the vein, which is very similar to the "Wallace vein," and about the same magnitude, "shows better daily." It is almost impossible to estimate the quantity of black oxide of copper already obtained here. One soldier alone, confessed to me that he had collected and sold 3,500 lbs., at 25 and even 50 cts. per lb., in the form of bowlders.

When we reflect that no small number were following the same profitable business, and also that there were about 4,000 visitors at Copper Harbor during the past summer, who, as a matter of course, took with them one or two pounds each, I do not deem it an extravagant estimate to suppose that this locality has already furnished 60,000 pounds weight; although only about 40,000 appeared on the shipping list in September last. The extent of ground from which this amount has been taken, will not probably cover a surface of five acres, including bowlders and all.—Now as there are more than 5,000 acres in location No. 4, it follows that not one thousandth part of the tract has been properly tested for the discovery of this most valuable ore. And as this ore is found to exist in a well defined vein in the hill south of the garrison lake, I would respectfully recommend a careful, but economical exploration of that range through the entire tract.

According to H. T. De La Beche, the annual produce of the mines of Great Britain and Ireland amounts to £20,000,000 sterling, or nearly $97,000,000; yet there is previously no positive evidence of this product, as before remarked, beyond the "point of the pick and gad." It is all based on probability. And so of the coal, that enables the steam engines of Great Britain to perform the labor of more than one-third of the human race. M. Fournet has well remarked, that "the metals having become objects of

the first necessity to man, he would, during all times, and in all places, attach great importance to their receptacles, and that it is to the study of their mode of concurrence, their connection with adjoining substances, and their relation to the phenomenon observable in the neighboring country, that geology owes its birth."

Yet these gifts of the Creator, like every other blessing, may be easily perverted, and the business of worthy and honest mining, changed to disastrous and ruinous speculation. Such a state of things is to be regretted, and as far as possible to be avoided. * *

Notwithstanding the latitude is about 47½° the thermometer rarely sinks below zero, and the ground does not freeze in winter. No country can excel it in growing potatoes and other esculent roots, or in yielding a greater amount of grass. I planted potatoes near the Necomenon river on the 3d of July, and had a good crop from them in October, when the tops had not been touched by frost. * *

The following is an extract from a letter, dated January 6th, written by a practical Cornish miner of great experience—the captain of the mines in the neighborhood of Eagle river, belonging to the *Pittsburg and Boston Copper Harbor mining company*, addressed to the treasurer of that company, residing in this city:

"Since I last wrote to you, the most astonishing prospect has opened upon us suddenly here, that perhaps ever cheered the most romantic adventurer after mineral wealth! If present qualities and quantities of ore continue, we may have here fallen in with the richest *silver mine perhaps in the world! and in copper never exceeded.* It now so far surpasses anything that perhaps you or I ever saw or heard of *in the legends of mining*, that for curiosity's sake alone, I should think it worth a journey to witness what nature has done so near the surface, particularly in the silver line. Yesterday I barreled up 1772 lbs., and to-day 1400 lbs., of silver ore, with the help of one man, and got it out likewise. Last month got out 55 tons of raw ore, making in all, 145 tons."

Railways.

The Cincinnati Gazette, in an article upon the railways of this country, has the following remarks:

In every part of the United States, the desire is to *extend her railroads.* New England takes the lead just now; but wherever any improvement is talked of, preference is given to the railway.

We care not how far this kind of improvement is pushed, if the parties interested will only act judiciously, and have permanent works erected. They enlarge the domestic market, they increase the value of every kind of property, and they bind the states together by the strongest of human ties. Massachusetts is becoming one neighborhood by this instrumentality, and Boston is made thereby the very heart of it.

New York is just beginning to feel this railroad influence. The great Erie railroad is under way. That, when finished, will connect the city with the lake, and insure a line from Buffalo to Toledo, Detroit, thence to St. Joseph's and Chicago. And this will quickly lead to a full traversing of the great state of New York by iron tracks, connecting that great state with its commercial heart as Boston is connected with Massachusetts.

And then will come our turn. We have or will soon have, a main branch extending directly though Ohio. A few months more, and Sandusky and Cincinnati will be neighbors. And then branches will go out, and other tracks will be built, all, or nearly all, centreing here. We must not, however, be in too great haste. We have erred already in this way, if we look as the character of the work done, and its ultimate cost. No railroad ought to be undertaken until ample means are provided to make it substantial and thorough. And that state will profit the most in the long run, that acts upon this principle, even though it seems to get along slower than some of its neighbors.

English Iron Trade.

FROM THE LONDON MINING JOURNAL, SEPT. 18, 1846.

From our correspondent.

Iron is still in fair demand at quotations. Scotch pigs gave way a little in the early part of the week, but have recovered. In Swedish iron and steel, and Russian iron, there is nothing doing.

To the Editor of the Mining Journal.

Glasgow Pig Iron Trade.—A limited business has been done this week; yet, through the firmness of holders, prices have given way but little. We quote the price to-day at 72*s. d.* for No. 3; 74*s.* for mixed Nos.; and 75*s.* to 76*s.* for No. 1—cash, free on board.

Glasgow, Sept. 16. DOUGLAS & HILL.

LONDON, SEPT. 25, 1846.

	£.	s.	£.	s.	d.
Bar *a* Wales—ton	0	0—	8	15	0
" London	0	0—	9	15	0
Nail rods	0	0—	10	10	0
Hoop (staf.)	0	0—	11	10	0
Sheet	0	0—	13	0	0
Bars	0	0—	11	0	0
Welsh cold blast foundry pig	0	0—	5	5	0
Scotch pig *b* Clyde	3	13 6	3	15	0
Rails, average	9	15—	10	0	0
Russian, CCND *c*	0	0—	0	0	0
" PSI	0	0—	0	0	0
" Gourieff	0	0—	0	0	0
" Archangel	0	0—	13	10	0
Swedish *d*, on the spot	11	0—	11	10	0
" Steel, fagt	0	0—	16	5	0
" " kegs *e*	0	0—	13	10	0

a, discount 2½ per cent.; *b*, net cash; *c*, discount 2½ per cent.; *d*, ditto; *e*, in kegs ¼ and ⅜ inch.

From our correspondent.

IRON.—Welsh and Staffordshire firm at quotations of last week's *Mining Journal.* Scotch pig a shade lower, with a rather heavy appearance. Several large purchases of rails this week by railway companies at £9 15*s.* to £10. A few sales this week of Swedish iron and steel.

Communicated by Messrs. Whitcomb & Barton.

There has been no change in the price of English bar iron this week, which may be quoted firm at £9 in Wales. Welsh and Staffordshire pig iron are in fair demand, particularly the latter, for which higher rates have been paid. In Scotch, the business done this week has been rather more limited; we quote the price firm at 74*s.* cash, for mixed Nos.

To the Editor of the Mining Journal.

Glasgow Pig Iron Trade.—Sir, Prices within these few days, have somewhat declined, which has occasioned a brisker demand than we have had for some time. We quote the price to-day at 71*s.* to 72*s.* for No. 3; 73*s.* 6*d.* for mixed Nos.; and 75*s.* to 76*s.* for No. 1—cash in 14 days, free on board here. For immediate cash, something less than our quotations has been accepted for No. 1.

Glasgow, Sept. 23. DOUGLAS & HILL.

LONDON, OCTOBER 2 1846.

	£.	s.	£.	s.	d.
Bar *a* Wales—ton	8	15—	9	0	0
" London	9	15—	10	0	0
Nail rods	0	0—	10	10	0
Hoop (staf.)	11	5—	11	10	0
Sheet	0	0—	13	0	0
Bars	0	0—	11	10	0
Welsh cold blast foundrey pig	0	0—	5	5	0
Scotch pig *b* Clyde	3	12 6	3	15	0
Rails, average	9	15—	10	0	0
Russian, CCND *c*	0	0—	0	0	0
" PSI	0	0—	0	0	0
" Gourieff	0	0—	0	0	0
" Archangel	0	0—	13	10	0
Swedish *d*, on the spot	11	0—	11	10	0
" Steel, fagt	0	0—	16	0	0
" " kegs *e*	13	15—	14	0	0

a, discount 2½ per cent.; *b*, net cash; *c*, discount 2½ per cent.; *d*, ditto; *e*, in kegs ¼ and ⅜ inch.

From our Correspondent.

MONTHLY REPORT.—IRON.—Welsh and Staffordshire continue in fair demand, and we quote the former at 5*s.* per ton higher than on the 1st ultimo. A good business was done in Scotch pig during the past month, but the price is a shade lower. Mixed nos. can be purchased at 72*s.* 6*d.*; but for no. 1, according to brands, 75*s.* to 77*s.* 6*d.* is asked—at the present time the demand is languid. Swedish iron and steel were in a little better demand last month —several parcels of the former were sold at £11 5*s.* to £11 10*s.*, and some arrivals of the latter were sold ex-ship at £13 5*s.*—since then it has been sold at £13 10*s.* from the warehouse, and holders now demand £14.

Communicated by Messrs. Whitcomb & Barton.

The demand for English bar iron continues exceedingly good, and the late advance fully maintained. Extensive contracts for rails have been entered into this week, and high prices paid both for present and future delivery.

To the Editor of the Mining Journal.

Glasgow Pig Iron Trade.—Sir: We have had a quiet market this week, and have little business to report. No. 3 is in demand, and is the therefore higher in proportion than No. 1. We quote the price to-day at 72*s.* for No. 3, and 74*s.* to 75*s.* for No. 1—cash, free on board. DOUGLAS & HILL.

Glasgow, Sept. 30, 1846.

A City of Railroads.

The editor of a journal published at Atlanta, Ga., describes the peculiar centrality of that place as follows. Atlanta is located in the midst of a net of railroads, it seems. It is situated about six miles southwest from Decatur, the country seat of De Kalb. The editor says:

Within some two hundred yards of our office, stand the three fine depots of the Western and Atlantic, the Georgia, and the Macon and Western railroads — the whole three roads terminating at this point, and the cars of each both arriving and departing every day. The first, the Western and Atlantic, stretches away up into the Cherokee country, eighty miles to Oothcaloga, and when completed, will connect with Chattanooga, in Tennesee, whence another road will be soon laid, we trust, to Nashville. The second extends from this city to that of Augusta, 171 miles, whence we may travel by steamboat to Savannah, or by railroad to Charleston, 136 miles further. The third reaches from here to Macon, 101 miles, whence we may take the Central railroad to Savannah, 190 miles. Besides all this, our Virginia friends want to form a connection between Richmond and Atlanta; and before very long we expect another railroad to connect us with West Point, whence, on the Alabama road, we may easily visit Montgomery, Mobile and New Orleans.

Correspondents will oblige us by sending in their communications by Tuesday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Saturday, October 31, 1846.

English Railway Capital.

The Railway Record says, the total amount of capital authorized to be raised by the railway acts of last session is—for England, about £70,000,000; for Scotland, £13,500,000; and for Ireland, £9,000,000. The deposits prepaid in respect of these undertakings, amount in round numbers, to £5,000,000.

A calculation of the cost of French railways gives the following results: The total expense, 2,109,114,782f.; total dependent on the companies, 1,659,674,782f.; on the state, 449,440,000f. Out of the above obligations on the companies, there has been already deposited the sum of 437,750,000f. The state has devoted the sum of 182,500,000f.

Result of Railroads.

The Wilmington, (N. C.,) Journal says that "the present population of that town amounts to 9,000, an *increase* of 6,000 *since the railroad was built*, six years ago, when it was only 3,000!"

This is but a single case from a long catalogue which might be quoted, when the influences which attach to railroads, and the effect which is produced by their establishment, is apparent. All experience shows that wherever a track is laid, and the route is afterwards judiciously and properly managed, *new* towns and villages arise along its line, and an immediate and healthy impetus is given to the business and general prosperity of *old* ones. This will apply especially to the roads upon our Atlantic borders, and those who take the pains to watch the progress of passing events, are aware of the correctness of this statement.

It must be a source of high gratification to those interested in railroads, directly or indirectly, to know that at the present time, a deep public interest is being manifested, in all directions. There are now more than 10,000 miles of railroad in use, and in course of construction, in this country, and we have constantly, the most flattering accounts in relation to their existing and *prospective* success. In England the disposition to encourage and foster these enterprizes, is a growing feeling. All parties unite in pushing forward this great modern improvement, and all join their means or influences to augment the number of railroads, wherever there is fitting opportunity.

Sylvanus, in his "Pedestrian Reminiscences," grieves over the downfall of *coaching* in England, and hopes that "the day will come when their fate shall be avenged, and when railways shall be voted *slow*." In mourning the absence of the "old mail coach," he says, "how short sighted were we poor mortals when we imagined the 'London and Devonport,' or 'Halifax and London,' fast mails were sufficient for getting along. These and many more got over the ground at the rate of 10 or 12 miles an hour, and were, to my notion, the very beau-ideal of travelling. The make of the old mail was exceedingly handsome, strong, and perfectly unique. The exquisite color, royal arms, with the scarlet uniform of both guard and coachman, gave the equipage quite a distinguished air as you saw it opening on your sight far over the distant hill, as you sat on the 'down mail' that was so rapidly giving it the meeting. Who does not recollect the thrilling interest of the scene? Well might the greatest bard and most exquisite judge of life exclaim, 'what a delightful thing's a turnpike road!' for so it is, or, alas! that I should be obliged to say it—*was*."

But the days for coaching are past, and the "*crawling* age" of "twelve miles the hour" teams, must give place to the days of steam. Few men are now-a-days satisfied with a speed of less than double the best time ever made by the "fast mail." Such is the march of improvement!

The interest felt in railroad movements in America is progressive, and we observe with much satisfaction, that the press throughout the country is alive to the important benefits connected with this subject. A New England paper remarks very truly, that the feeling in favor of railroads in the United States has by no means reached its maximum; it has arrived to nothing like the pitch it has reached in England. To that point, or near it, it certainly will arrive, when not only all, or nearly all the railroad enterprizes now projected, will be built—but many others, some of them now thought to be absurd, and others scarcely dreamed of, will be established."

The New Hampshire Gazette remarks that "if the various railroad routes are executed, which are now *proposed*, (and most of them will be,) the seaboard of New England will have a much more direct available connection with the interior than has hitherto been the case." New England has already realized a vast amount of benefit from her internal improvements—and the Western and Eastern roads can be pointed to as evidence of the fact. Within the past five years, the city of Boston has increased her population in a ratio almost or quite double that of any previous five years in her history, and for much, very much of this augmentation to her population and local wealth, is she indebted to the railroads which terminate at that point. In this business, the eastern states are decidedly in the advance; and Massachusetts more especially, in the matter of railroad enterprizes, has set an example worthy to be followed.

The following from the Concord Gazette, will be found appropriate, in connection with the other remarks, and we take pleasure in pointing it to the attention of the readers of the Journal:

"The route from Portland to Montreal is urged on with great vigor by its friends, and operations have been commenced at both extremities of the line. It will most probably be carried on to completion in spite of its great cost, and the lack of capital which it would command were it a Boston or New York enterprize. Salem, (Mass.,) is soon to be connected with the new city of Andover by a railroad, and thence to Manchester, in this state, a road will be built in the course of a few years. Portsmouth also cannot fail at no very distant time to have a direct road to this place. This will enlarge the market for domestic produce to the great advantage of our farmers. In other parts of the country great progress is now making in furnishing the inhabitants with railroad facilities. The great New York and Erie railroad, from New York city to lake Erie, is again put in course of construction, being now in operation over 60 miles. It is also contemplated to build a railroad from New York city to Albany, a distance of 150 miles, which it is intended to run over in five hours, the fastest steamboat not being able to go it in less than eight.—In winter, of course, it will command the whole traffic. The only railroad communication in winter now is by means of the Housatonic railroad—a very round about and inconvenient route. It is stated that the Western railroad is likely to be benefitted by the new free trade system of the English, as much of the produce which was formerly shipped by way of Montreal will now come over the Western road to Boston. This stock is now nearly up to par, and the prospect is that in a short time it will pay a dividend of more than 6 per cent. A railroad is now constructed some distance above Springfield, (Mass.,) on the Connecticut, and is said to do an immense business. This road will no doubt be extended up the valley of the Connecticut as far as Wells river, at which point the proposed Passumpsic road will touch the river.

"Of the southern states, Georgia seems to have taken the lead in railroad matters, there being in that state over 500 miles of railroad in successful operation. In Ohio considerable has been done within the last year, but the western states in general are doing but little."

Richmond and Ohio Railroad.

In our last, we alluded to the excellent article which follows below, and to which we direct the especial attention of the reader, at this time. It will be found highly interesting—and contains much valuable information in reference to the rich valley of the James river, through which the Richmond and Ohio railroad is destined to pass. The statistical matter contained in this article will be found valuable, and we give place to the article entire, believing that it will be useful for reference hereafter.

Virginia and her Great Central Improvement.—(*From Hunt's Merchants' Magazine for September* 1846.)

In the magazine of November last, an article appeared entitled 'The Railroad Movement in Virginia,' presenting some general views upon the importance of constructing a continuous railroad from the city of Richmond to Guyandotte on the Ohio, at the mouth of the Guyandotte river, in Cabell county.

The project of connecting the valley of the James river with that of the great Kanawha, in order to open a thoroughfare from the Atlantic to the Mississippi valley, through the heart of Virginia, is one of the most important schemes of internal improvement in the United States, whether regarded as a great national work, or considered only in relation to its bearing upon the interests of Virginia.

More than half a century ago Washington pointed out this great route as one of paramount importance to Virginia, as a channel of intercommunication between the eastern and western sections of that great state. He actually reconnoitered the country, found the route perfectly feasible, and manifested his usual sagacity and foresight in locating several tracts of land along the line, which have since become estates of immense value, and some of them sites of flourishing villages.

In 1812, chief justice Marshall, Gen. Breckenridge, Col. Lewis, with other distinguished citizens of Virginia, actually surveyed the route, and the result of their labors confirmed the views of Washington. Had the state of Virginia followed the lead of these great men in opening this central route, she would have maintained her relative position amongst her sister states, and been at this time the first commercial, manufacturing and agricultural state in the Union.

At the early period referred to, however, railroads were unknown, and the plan of improvement was to render the James river navigable to as high a point as practicable, and thence construct a good turnpike, across the mountainous region of the state, to the navigable waters of the Great Falls, and thence to improve the navigation of this river to its junction with the Ohio.

This magnificent plan was suffered to remain unattempted, with the exception of some improvement by means of locks and dams, in the James river, and the construction of a canal through the gorge of the Blue Ridge.—For many years nothing besides was done in furtherance of this grand design.

In March, 1832, 'the James River and Kanawha company' was incorporated by the legislature of Virginia, with a capital of $5,000,000. This company was aided by a subscription on the part of the state, of two-fifths of the capital stock, and was 'charged with the duty of connecting the tide waters of the Ohio, by one of three plans, that is to say either by a continuation of the lower James river canal, to some suitable point on the river not lower than Lynchburg, a continued railroad from the western termination of that canal, to some convenient point on the great Kanawha river, below the great falls thereof and an improvement of the Kanawha river, from thence to the Ohio, so as to make it suitable for steamboat navigation, or secondly, by the continuation of the James river canal as aforesaid, and a continued railroad from its western termination to the Ohio river; or thirdly, by a continued railroad from Richmond to the Ohio river.'

The second plan above mentioned, was adopted by this company in 1835. Several surveys made under its auspices across the country between the James and Great Kanawha rivers, have removed every doubt of the feasibility of the work and established the important fact, that the Alleghenies can be passed on this line at an easier grade than at any point to the north of it. Indeed it was the favorite plan of the late able and excellent president of the James River and Kanawha company, to extend a continuous water line from one river to the other. Reports of competent engineers have shown that such a work would be practicable, and that by means of a tunnel through the Allegheny ridge, the waters of the New river could be made to flow into the James river.

From causes however, which it is not proper here to discuss, this company have been obliged to discontinue their operations. They succeeded in constructing a canal along the valley of the James river, from Richmond to Lynchburg, a distance of about one hundred and forty-seven miles, and in making improvements in the rapids and shoals of the Great Kanawha river in the west.

The failure of this company to complete the work with which they were charged has been greatly prejudicial to the cause of internal improvement in Virginia. Their operations subjected the state as well as private stockholders to heavy losses, and occasioned so much dissatisfaction that further aid from the legislature in the prosecution of this great central improvement under the auspices of the James River and Kanawha company cannot be expected, except perhaps to enable them to extend the canal from Lynchburg to Buchanan in the valley of Virginia, a distance of 45 miles. The extension of the canal thus far would undoubtedly advance the best interests of the state and render the whole capital expended upon it much more productive; and yet so strong was the prejudice against this company that an application to the legislature at its last session for aid for this purpose, was unsuccessful.

The mode of executing this great work by means of a canal, a railroad, and the slack water navigation of the Great Kanawha which was adopted by the company in 1836, was undoubtedly unfortunate for the common wealth and will never be consummated. The experience of the last fifteen years has settled the question that such a mixed mode of communication could not compete with a continuous railroad through the whole line, and would never enable Virginia to contend successfully with the powerful competion of the northern states, for the trade and travel of the great valley world of the west. It is however the obvious good policy of the state to extend the James river canal as far as Buchanan, or to some point in the great valley of Virginia.—The time is not far distant when the Winchester road will be extended up the valley of the Shenandoah to this point, and besides from Lynchburg to Buchanan, the great southwestern railroad will be constructed, thus pouring into this central channel, the immense iron, lumber, and coal trade of middle Virginia, from this point to the tide waters would afford profitable business for the canal, while the railroad from this point eastward, would be mainly employed in the conveyance of passengers and light valuable merchandize.

The third mode of prosecuting this great work, by means of a continuous railroad, was never favorably entertained by the said company, although it is unquestionably the best and only one which will restore Virginia to former prosperity.

This important measure was brought before the public last year, and a bill for a charter, authorizing the construction of a railroad from the city of Richmond to the Ohio river, was introduced into the legislature of Virginia, at the last session of the general assembly. After able and elaborate debates, upon the bill in its passage through both branches of the legislature, an act was finally passed on the 3d of February, 1846, entitled, 'An Act to Incorporate the Richmond and Ohio Railroad Company.'

This company is charged with the duty of constructing 'a railroad from the city of Richmond on the south side of James river, to some point on the Ohio river, at or below the mouth of the Great Kanawha river, by the most eligible route, other than the immediate valley of the James river below Lynchburgh, said route to be hereafter determined by actual survey, under the direction of the said company.'

The company have thus an open charter for locating their road, subject to the single restriction, of laying the route on the south side of James river, below Lynchburg. This restriction was imposed, to avoid conflict with the canal on the north side of the river. It is however no objection in the charter, since the route from Richmond to Lynchburg, as prescribed in the act, is some 40 miles nearer, and more feasible for the road, than it would be along the immediate valley of the James river.

The charter thus obtained is extremely liberal in its provisions, and offers great inducements to capitalists to invest their funds, independent of the main consideration, that this great work will yield a large dividend upon the capital expended in its construction.

Among the provisions may be mentioned, the ample manufacturing privileges secured by the charter; the right of constructing lateral roads, twenty miles in length on each side, the exemption of the capital stock from taxation, and the dividends also, unless they exceed six per cent. per annum; the right of the company to control its dividends; its freedom from legislative interference, with the charter for thirty years from the time allowed for the completion of the work, and the right of the company to purchase and hold real estate to a large amount, for purposes other than such as may be necessary for the construction and preservation of the road. These provisions were engrafted upon the charter, to render it acceptable to non-resident capitalists, and it is believed that no charter with grants more liberal, was ever given in the United States.

Having thus presented an outline of the origin, progress and character of this grand project, it is designed to present some further considerations going to show its great importance, not only as a grand national work, but also as one indispensible to the happiness and prosperity of Virginia.

In the article already alluded to, several general views were given, illustrating its national character, and among them was its importance to the union, as a great military road, in the event of a war with any maratime power. This view has been sanctioned by the opinions of the first military men of the country. No other line of intercommunication could be so secure and central between the Atlantic cities and the Mississippi valley. Lying wholly within our own territory, and passing through the geographical centre of the states east of the Mississippi, its eastern terminus would connect with the Chesapeake, the safest and best harbor for our fleets. Its western terminus would open into the great agricultural regions of the

west, whence abundant naval and military stores, could be obtained at all seasons of the year, and our armies and munitions of war transported each way with perfect security.

It would facilitate intercourse with the federal capital from all parts of the union, south and southwest of Washington, more than any other similar work projected, and band together the Atlantic and trans-allegheny states like an adamantine chain. In this view all the great works of internal improvement, crossing the Appalachian chain of mountains, have an important national bearing. In spite of the virulence of party spirit and the corruption of unprincipled demagogues, these iron bands will do much to maintain the integrity of the union. The interests of the states on the eastern slope of the Alleghenies will become more and more assimilated and merge more and more in commerce and manufactures, while the leading interest of the great west will continue to be agriculture. Hence the importance to the whole country of uniting these great divisions by means of iron bands across the Alleghenies as great cordons of national strength and union.

Looking forward to the rapidly increasing intercourse between America and Europe, and to the establishment of new lines of steam ships across the Atlantic, this great central thoroughfare through the heart of the republic, will become the most important channel of intercourse between the east and the west.

The Portland and Montreal railroad; the Vermont and Massachusetts road; the Western railroad, in conjunction with the Central railroad, through New York; the N. York and Erie railroad; the Pennsylvania works, and the Baltimore and Ohio railroad, all have the same great object in view, to secure the trade of the mighty west, and in this respect they have all a national character; but none so worthy to be regarded a great national work as the Richmond and Ohio railroad.

Extending three hundred or perhaps four hundred miles, through the centre of the Atlantic states, this magnificent railway would more than any other become the great outlet for the agricultural products of the Mississippi valley. The imagination labors in contemplation of the immense productiveness of this most fertile and extensive valley on the face of the earth, when it shall be filled, as it soon will be, with tens of millions of intelligent and industrious freemen. For the exportation of its productions and the importation of merchandize, the great works already constructed or in contemplation, will be taxed to their utmost capacity. It is a noble spectacle that should make an American feel proud of his country, to witness the generous rivalry of the Atlantic cities, in pushing forward their great lines of intercommunication with this wonderful region, and no man of soul capacious enough to contemplate the resources of this magnificent valley, can do otherwise than bid them all God-speed in this noble enterprize.

That portion of the immense plain lying between the Gulf of Mexico and the Arctic ocean and the Rocky and Apalachian mountains, which constitutes the valley proper of the "father of waters," contains an area of something more than one million square miles of the most fertile land on the face of the globe, and is capable of containing an agricultural population of more than 100,000,000 inhabitants.

In 1780 the whole population of this immense region did not exceed 20,000. At the present time it cannot fall short of 9,000,000. It is increasing in an accelerating ratio, and unless some great national calamity befall us it will soon reach the amazing number of 30,000,000 of inhabitants.

From the able report of Mr. Calhoun in the senate June 20th, on the subject of the Memphis convention, it appears that the increase of the commerce of this valley has exceeded that of its population. In 1817, the whole commerce of New Orleans with the upper country, was transacted upon 20 barges of 100 tons each, making but one yearly trip. And that on the upper Ohio, not more than 150 keel boats of 30 tons each, were required to transact the business of that beautiful river. From the same report it also appears, that in 1817, the whole tonnage of the lower Mississippi and the Ohio, was only 6500, and that in 1843, the tonnage of the Mississippi and its branches was about 90,000. The aggregate value of the products of this vast valley at the same time amounted to the enormous sum of $220,000,000. From these data, as well as from the last treasury report, it is probable that the present annual value of the products of this valley cannot be less than $300,000,000. Indeed there can scarcely be any danger of over-estimating its amazing resources, and yet all this is but a beginning of what will be its trade and commerce in a few short years. In the natural course of events, the population of this region in 20 years will be at least 27,000,000, and if its productions keep pace with its population, their annual value at that time, will amount to $1,000,000,000. A vast proportion of this immense and rapidly increasing business, will flow through artificial channels of trade across the Alleghenies to the Atlantic cities. From what has already been advanced, it must be evident that the Richmond and Ohio railroad will come in for a large portion of this business. Suppose the expense of freight and tolls be equal to 20 per cent. upon this vast amount of produce in getting it to market at New Orleans and the Atlantic cities, it would reach the sum of $200,000,000. Add to this immense sum the cost of importing merchandize to meet the wants of this same region, and the annual expense of the freight of its exports and imports will probably not fall short of $300,000,000.

It is impossible to estimate how large a portion of this vast trade will pass down the Mississippi. We should consider that by means of railroads the whole upper valley of that river will be more nearly connected with the mouth of the Chesapeake than the Gulf of Mexico, and when at the former place will be much nearer the great markets of the northern Atlantic cities and of Europe. In point of time and expense, the current of trade and travel will naturally flow even from the lower valley of the Mississippi eastward and northeastward. Hence it is reasonable to conclude, that a majority of this vast business will be transacted through these artificial channels across the mountains. In this view of the case the Old Dominion with her great central improvement completed, will occupy a vantage ground in contending for this splendid prize, the trade and commerce of this wonderful valley.

The implications of business between New York and Richmond would also in a short period be increased tenfold by the completion of this work. Its western terminus at Guyandotte or at the mouth of the Big Sandy river on the Ohio, would strongly invite a connection of the railroad already built from Louisville to Frankfort, and thus give to Kentucky the shortest outlet to the Atlantic board, and the speediest intercourse with the northern cities. It would in fact bring New York and Louisville within three days of each other, and the falls of the Ohio, the future site of immense manufacturing establishments, within thirty hours of the Atlantic.

Another argument of the national character of this contemplated road is, that it will become a common trunk for the great southwestern improvements, which will be ere long constructed, from the eastern sections of Kentucky and Tennessee, and the northern parts of Alabama and Georgia, and course up the valley of the Holstein or Clinch river into the southwestern part of Virginia, and thence to this great central improvement.—From this source Virginia will ultimately derive an immense business, without even the fear of a rival. To accomplish this important southwestern connection, has long been an object of solicitude with some of the most enlightened men of Virginia. The extension of the Virginia works southwesterly in this direction, would force a continuation of them to Memphis, crossing several great lines of communication between South Carolina and Georgia and the Ohio river, and thus pour into the lap of the Old Dominion an immense trade and travel from the whole southwestern section of the union.

The western terminus of the work under consideration, would be favorably situated to concentrate a large foreign trade. It would naturally draw the business of the state of Ohio, and through her great works already constructed and in contemplation, derive much of the trade of the lakes, especially in the early and latter part of the business seasons. The Erie and Ohio canal, the Xenia and Cincinnati railroad and the Mad river improvements will all be feeders to a greater or less extent of the Richmond and Ohio railroad. With one terminus at Guyandotte, and another at the mouth of the Great Kanawha, at Point Pleasant, this road would accommodate the business of the Ohio valley, from Cincinnati upwards, 250 miles, better than any other route. While the more northern routes were obstructed with ice and snow, the great arteries of trade and commerce in Ohio could pour their wealth through no other channel.

In this connection it is proper to consider more fully the advantages of this route, by reason of its southern location, and its consequent exemption from the obstructions of ice and snow.

In consequence of these difficulties on the great northern routes, and the dangers of lake navigation in the fall and winter seasons, the trade and travel between the east and the west are subjected not only to vexatious and uncertain interruptions, but to serious damage and pecuniary embarrassments. Many a merchant can trace his total failure to this single cause, and many a western farmer is also subjected to a ruinous depreciation in the price of his produce.

These very serious evils would to a great extent be removed by the completion of this great central trunk through Virginia, and the proceeds of the west would find through it an open passage to the Atlantic cities during all seasons of the year. Hence, late in the fall, through the winter, and early in the spring, inmense quantities of merchandize and produce would be transported over this route, while its great rival thoroughfares would be obstructed. The chief cities of the west being south and west of the western termini of these great arteries of business, it is evident from a moment's reflection, that there would be an accumulation of trade and travel upon the more southerly routes, from those more northerly.

For instance, none of the Atlantic cities would trade with the west, through a channel more northerly than its own, while much of the business of each, would flow through a more southerly line. Boston would carry on her rapidly increasing trade with the west as much as possible through her own works, and yet at those seasons of the year, when they were even liable to obstructions, she would transact much of her business through the New York and Virginia routes. The same remarks will apply with greater or less force to Philadelphia and Baltimore. But to none of the Atlantic cities does this view apply with so much force as to New York.—Having through this great central railroad, the most direct communication with the queen city of the west, open at all seasons of the year; who does not see that the construction of this work will introduce a new era in the trade and commerce of the great emporium. While her own great works are obstructed, and the noble Hudson itself is frozen over, New York can still through the Richmond and Ohio railroad, carry on an active trade with Cincinnati and other cities in the west, and thus extend her business through the entire year, instead of crowding it into eight or nine months as at present.

On reference to proper authorities, it will be found, that the average time the business of the Erie canl has been obstructed by ice, during the last 20 years, is 124 days per annum, and that of the Hudson river from the some cause, is something over 91 days; now then, considering the hurry and confusion incident to the closing of navigation, and the delay and uncertainty upon its opening before business assumes its regular course, and the time of the interruption of business from this cause, may be safely stated at four months and a half in each year. But the mere suspension of business is not all the disadvantage attending this interruption. Immense quantities of merchandize and produce are stopped *in transitu* occasioning great disappointment and heavy losses. How different would be the case if the course of trade could flow smoothly through the year. An immense saving would be made to New York merchants, in avoiding bad debts, which are in many cases made during the hurry and excitement of the business season. During this exciting period, when there seems to be a sort of mania for swelling the amount of business, many a shrewd country merchant understands the philosophy of obtaining an extended credit, who, if his New York creditor had taken time to act with more deliberation, would have found it difficult to impose upon his credulity.

New York then has a direct and most important interest in the construction of this great central improvement of Virginia. By means of her own canals and railroads she can with one hand grasp the trade of the west in successful competition with her eastern rival, Boston, while through this Virginia line, she could control with the other hand a majority of the same trade as against Philadelphia and Baltimore, her powerful competitors on ths south.

From these general considerations, it is certain that the accumulation of trade and travel upon this great central railroad through Virginia will be immense, and that it will to a great extent participate in the business of all parts of the union. If constructed in a manner suited to its importance it cannot fail to be highly productive, and yield a large dividend upon the capital expended upon it. A majority of the business transacted upon this and the other great rival routes, originates beyond their western termini. This route tapping the Ohio at the lowest point, and affording the easiest transit thence to tide waters, will have a decided advantage over all the others, and will draw more or less of the trade and travel which would otherwise pass over them. These views are all strengthened by the fact, that the navigation of the upper Ohio is during the warm season, when travel is the greatest, interrupted by shoals and low water. In passing up the Ohio above Cincinnati, the first difficult shoals occur at the mouth of the Guyandotte, and boats can ply between the former place and Guyandotte, when they cannot ascend higher, or at farthest above the mouth of the Gt. Kanawha.

These considerations then show the character of this improvement, as a great national work, and place the productiveness of its stock beyond a doubt. But there are other reasons which should more strongly commend it to Virginia as a state work, inseparably connected with her best interests.

If the Old Dominion were a barren waste and no business originated within her borders along the line of this improvement, it would still be evident from the arguments already presented, that it would yield the state a large revenue arising from freight and tolls upon foreign trade and travel, and yet the converse of this can also be made to appear, that if no business arising beyond the limits of the state were done upon this road, it would still net a very large revenue.

And yet with all these arguments in its favor, the people of Virginia remain indifferent to its construction, and while similar works are advancing rapidly the wealth and population of other states, the Old Dominion with her credit unimpaired and out of debt, still seems reluctant to lend her aid in constructing this most important railroad, though by its completion, the enhancement of her real estate, would exceed in amount more than four times its whole expense.

In this connection it may not be improper to glance at the former commercial state of Virginia and compare it with her present condition, that we may be able to form an estimate of what would probably have been her present position, had she pursued a different policy.

From the most reliable authorities it appears that in 1769, the imports of Virginia were about $4,085,472, while that of New York was only $907,200!

The exports of these two states were about in the same proportion, so that at that early period the commerce of Virginia was nearly five times that of New York.

At the time of the adoption of the federal constitution in 1791, the imports were as follows: from Virginia, $2,486,000; from New York, $3,012,000. Their exports for the same year were, from Virginia, $3,131,000; from New York, $2,505,000. The commerce of these two great states therefore about 50 years ago, was nearly equal. In 1796, Virginia exported $5,268,000; New York, $12,208,000.

From this period it may be truly remarked that the illustrious men of Virginia became politicians, rather than devoted to the commercial and agricultural interest of the commonwealth, and from this point of time this state rapidly declines, while her powerful competitor advances still more rapidly in commerce and wealth. From 1821 to 1842, the import trade of these states were in round numbers, as follows:

1821,	New York,	$23,000,000	Virginia,	$1,078,000
1822,	"	25,000,000	"	864,000
1823,	"	27,000,000	"	681,000
1824,	"	36,000,000	"	639,000
1825,	"	49,000,000	"	553,000
1827,	"	39,000,000	"	431,000
1829,	"	43,000,000	"	375,000
1832,	"	57,000,000	"	550,000

From these facts it will be seen that the import trade of Virginia fell from $4,085,472 in 1769, to $550,000 in 1832! While that of New York increased from $907,000 in 1769, to $57,000,000 in 1832!

That the import trade of New York in 1832 was about 70 times greater than it was in 1769, while that of Virginia was 11 times less!!

Their comparative exports and imports in 1838 and 1840 were as follows:

1838,	Virginia exp.,	$3,985,228	Imp.,	$377,142
"	New York do.	23,000,471	"	68,453,206
1840,	Virginia do.	4,778,220	"	545,086
"	New York do.	34,264,060	"	50,440,740

Their tonnage was as follows:

1821, Virginia....63,326..New York.....244,338
1842, Virginia....47,535..New York.....518,133

With these astounding facts before them, let the people of Virginia determine how long this retrograde movement shall continne. In her position in the Union, her soil, productions, climate and natural resources there is nothing which justifies this humiliating comparison. On the contrary Virginia possesses within herself all the natural elements of wealth and prosperity in greater abundance than her great powerful rival at the north.

Her noble Chesapeake is one of the most extraordinary geographical features of the North American continent. Midway between the gulfs of Mexico and St. Lawrence it indents the country with deep and broad estuaries, and affords a safer and more extensive inland navigation than any bay of its size in the world. It would seem on looking at the map to be the place designed by nature as the safest harbor of our ships, inviting and concentrating the commerce of the whole country. On the west the Potomac, the Rappahannock, the York and James rivers are large navigable streams which open up into the whole of eastern Virginia, affording the most abundant facilities for commerce; and yet with all these natural advantages, Virginia from being as she ought still to be the first commercial state in the Union, has fallen to a medium rank among the states of the republic.

From this comparison of Virginia with New York, let us consider briefly the immediate advantages which would result to her from opening her central improvement, and it will be apparent that her honor, her wealth, and prosperity demand its immediate construction. Indeed these advantages are so obvious that it would almost seem superfluous to advert to them. Many of these were briefly noticed in the number of November last already alluded to, but they should be presented again and again until the people of Virginia can be brought to act upon this subject so vital to their interest.

The cost of this central improvement would probably be ten millions of dollars. It could be built for less, but not in a style corresponding to its importance as a great national and state work. In reference to the vast trade and travel which beyond all question would pass over it, how insignificant does this amount appear.

In a political point of view its construction is indispensible to the very existence of the commonwealth. Causes are at work which have rendered antagonistical the interests of the eastern and western portions of this great state. Indeed the changes which have already been rung upon the disunion and dismemberment of the old dominion, may in an evil hour prevail, and produce results which every true Virginian would deplore. This great work once constructed would forever remove all these angry and exciting causes of discontent, and give to the whole state the practical lesson that their true glory and prosperity consisted in union and a generous regard for the welfare of the whole.

As a source of revenue to the state there can be no question. Estimating its cost as before at ten millions of dollars, the interest on that sum would be at six per cent., $600,000 per annum. Probable cost of repairs, salaries of officers, including all expenses of working the road would be $700,000. This estimate is based chiefly on the data furnished by the last report of the Baltimore and Ohio railroad company of the income and disbursements of the main stem of their road, for the year ending September 30th, 1845. The income from the same data in the ratio of the length of the two roads, would be about $1,500,000. This allowing the large sum of $700,000 for expenses would leave still $800,000 or 8 per cent. on the capital stock. But this estimate is based upon the productiveness of the Baltimore and Ohio road in its present unfinished state are but 'the small dust of the balance, compared with those which may be expected when the work is completed to the Ohio river.'

From the same report it appears that the whole number of passengers upon the main stem of their road for the year 1845, was 202,450, and the aggregate passage money was $369,200 30. Now when it is considered that this work is still incomplete, and that the travel will be immensely increased when once it is extended to the Ohio, and that the Richmond and Ohio railroad from its more favorable location would command even more travel than the Baltimore road, it cannot be extravagant to estimate the travel on the Richmond road to be equal at least to 150,000 through passengers annually.

Assuming this as a basis and estimating the fare through at only $10, the annual income from this source alone would be $1,500,000.

The income from freight on the Baltimore road for the year ending Sept. 30th, 1845, was $360,720 00 or nearly the same as its income from passengers. On this basis the aggregate income on the Richmond and Ohio railroad could hardly fall short of $3,000,000. Large as this may appear, it will be found on reflection to be moderate in view of the rapidly increasing trade and travel of the west. In this view of the case where is the wisdom of that policy which shrinks from the expenditure of $10,000,000 to accomplish results like these?

But again, from the experience of the past we have abundant evidence that the increased value of real estate in Virginia should alone stimulate the legislature to the speedy accomplishment of this noble enterprize. In this point of view this road will most favorably compare with any road in the United States. Crossing the great valleys of Virginia at right angles it at once opens an immense and fertile territory which is now secluded and shut up between her mountain ranges.

Looking at the statistics of New York, it appears that in 1825, the year when the Erie canal was finished the value of her improved lands was $174,024,175, and that in 1835, 10 years afterwards, that valuation had risen to $241,385,050, showing an enhanced value equal to $72,361,475!

Now then there can be no reason why the enhancement of real estate in Virginia will not be in a greater ratio on the completion of her great work than it was in New York, for its present value is at its lowest depression and although no data are at hand from which to estimate the present value of her real estate, it will certainly be safe to estimate the increased value of the same in ten years resulting from the construction of this work at $30,000,000. Another view of this matter will demonstrate the propriety as a financial measure, of the construction of this great railway entirely on state account. There are in Virginia at least 41,600,000 acres of land.—Now when we consider that lands are extremely depressed in price in this state when compared with lands in New York, Pennsylvania and Ohio, and that this great central railroad when completed would infuse life and activity throughout the commonwealth, removing in a great degree the causes which have so long and so low depressed the price of lands, and introducing thousands of enterprizing citizens from other states and millions of active capital, no sane mind can doubt that its effects would raise the price of lands throughout the state on an average 75 cents per acre. This would produce $31,200,000, in the enhanced value of real estate alone, without reference to the value of real estate in cities, towns, and villages. The consequent enhancement of property in the city of Richmond alone, would in ten years be more than half that amount.

It would undoubtedly be safe to predict that the taxable property, real and personal, would be increased within ten years from the completion of this great work, as its immediate consequence at least $100,000,000.—Vast as this sum may appear, it will be found far less than the ratio of increase of property in New York within ten years from the completion of the Erie canal—and it should be considered too in making this comparison that in 1825 the price of lands in New York were comparatively high, and the state in a highly prosperous condition—while lands at the west were very cheap, and the influence of the canal was to equalize the price of lands in New York and the west, by affording greater facilities for the market of western products. But the case is far different with Virginia. She is pressed on the north, the east, and west with a denser population than her own. The surrounding lands of Maryland, Pennsylvania, and Ohio, are of no better quality, but command a price from 100 to 300 per cent. higher. And the tendency of opening this great thoroughfare and giving free course to trade and travel through Virginia, will be to elevate the price of her lands more than 100 per cent.

From the statistics accompanying the last census it appears that while the sheep of New York produce 1·92 lbs. of wool per head, the sheep of Virginia with little or no care yield 2·25 lbs. per head. Their wool is also of a superior quality and has gained the premium at several of the last annual fairs held at Lowell, Mass. These facts are important, going to show the superiority of Virginia over New York as a wool growing country.

In the counties along the line of the Richmond and Ohio railroad, there was in 1840, a population, in round numbers, of 300,000, and these counties in 1840 produced about 5,500,000 bushels of corn, 1,500,000 do. of wheat, and about 300,000 pounds of wool.—The great resources of iron, lead, salt, and lumber are along this same line and would originate a vast and rapidly augmenting business. Indeed it may be affirmed without fear of contradiction, that no section of country in the Union of equal extent would furnish in the quantity and variety of its mineral, agricultural and manufacturing products, more business for a railroad than this same central portion of Virginia.

No state of the Union should at this time be more densely inhabited than Virginia, and yet a few facts will show how far short of her rank the Old Dominion falls in this respect. As compared with New York and the country north and west of the Ohio, the following shows the census at different periods, viz:

	Virginia.	New York.	The west.
1790	747,610	340,120	110,368
1800	886,149	586,050	280,855
1810	974,622	959,059	694,073
1820	1,065,366	1,372,812	1,423,627
1830	1,211,405	1,918,608	2,286,301
1840	1,237,797	2,428,921	4,144,136

Thus it will be seen that while Virginia during 50 years from 1790 to 1840, did not double her population, New York increased her population more than 8 times, and the west more than 37 times!

Had the ratio of increase been the same between New York and Virginia, the latter in 1840 would have contained more than 5,000,000 inhabitants, or more than four times her present number!

These are startling facts, and when it is considered that a large portion of the state lies west of the mountains, and in 1790 was mostly an unbroken wilderness, and to a great extent still remains so, and that still farther west in what was then a wilderness, have arisen new states teeming with their millions of inhabitants and more densely inhabited than this oldest state in the union, it becomes matter of sober inquiry why Virginia falls so far behind her goal. New York since she entered upon her great works of internal improvements, has nearly tripled her population, and it is highly probable that had the Old Dominion entered upon the same policy with equal zeal, she would at this time number at least 3,000,000 inhabitants. Nor should the facilities of Virginia for manufacturing purposes be here overlooked. The fall of the James river at Richmond, and of the Great Kanawha and Cole rivers in the west along the line of this improvement, as well as the Grand Falls of the Potomac and many others of less note, give to Virginia a preeminence in her natural advantages for a great manufacturing state.

Her immense mineral wealth is almost boundless. Gold, copper, lead, iron, coal, salt, limestone, marble, granite, alumearths, soapstone, freestones, ets., abound within the state. These treasures of wealth would all be developed by the construction of the great works under consideration, but now mostly buried in the bowels of the earth.

From the valuable statistics collected in Professor Tucker's excellent work, it is shown that Virginia holds a high rank as an agricultural state.

Her agricultural products amounted in 1840 to $59,085,821
Those of New York were estimated at .. 108,275,241
Those of Pennsylvania " " .. 68,480,924

Showing that Virginia holds the third rank among the states of the union in the aggregate amount of agricultural products.

In reference to some of the great staples of agriculture, her rank is as follows:

Of tobacco,	Virginia	gathered	75,347,106 lbs.
"	Kentucky	"	53,436,909 "
"	Tennessee	"	29,550,432 "
"	Maryland	"	21,846,020 "
Of flax and hemp	Virginia	produced	25,594½ tons.
" "	Missouri	"	18,010¼ "
Of Indian corn,	Virginia	"	34,577,591 bush.
" "	Tennessee	"	44,987,188 "
" "	Kentucky	"	39,847,120 "
Of wheat,	Virginia	"	10,109,716 "
"	Ohio	"	16,571,661 "
"	Pennsylvania	"	13,213,077 "
"	New York	"	12,286,418 "

Thus it appears Virginia sustanins the first rank in the union in the production of tobacco, flax and hemp. The third in relation to Indian corn, and the fourth in relation to wheat.

Virginia, in 1840, raised 10,622,345 bushels of bituminous coal, and Pennsylvania 11,620,654 bushels. Of salt, Virginia produced 1,745,618 bushels, and New York 2,867,884 bushels, thus holding the second rank in the production of coal and salt.

In the production of wool the order of the states is this: New York, Vermont, Ohio, Pennsylvania and Virginia. In the products of the orchard, they rank thus: New York, Maine, Virginia.

Of wine, there was made in Virginia more than twice as much as in any other state, and there is no doubt that for wine and silk her climate and soil are equal if not superior to any portion of the union.

These statistics are given to show not only the quantity but also the variety of the productions of this great state, and as some earnest of what would be the wealth of Virginia when once aroused to the development of her immense resources.

In the interior and western portions of the state are extensive forests of pine, oak, whitewood, cherry, walnut and other valuable timber, which would also find a ready market and add greatly to the wealth of the commonwealth.

Nor should the famous and unrtvalled thermal, chalybeate and sulphurated springs of Virginia be overlooked in this connection. These delightful watering places, with their sublime and beautiful scenery, would all be thrown open to hundreds of thousands of visitors, and become sources of an immense income to the railroad, and of wealth and refinement to the interior of the state.

There is one other point of view in which the advantages of this work will most favorably compare with other lines of transportation from the west.—From the most reliable sources of information it appears that the present cost of transportation of a barrel of flour from Cincinnati to New York via the Ohio and Erie canal, lake Erie and the New York canal, is $1 35. From the same place via the Ohio river, Pittsburg and the Pennsylvania works, $1 40, and via New Orleans $1 38, besides this there is usually an allowance of some ten or twelve cents to be made per barrel, for extra risk, and for soiling the barrel at New Orleans, which will make the cost in fact by this route about $1 50.

The cost of transporting via Richmond and Ohio railroad and the Delaware and Hudson canal would not exceed one dollar per barrel, and when the lines of transportation were fully established between N. York and Richmond, the expense would be still less. This consideration is of very great importance when we consider the vast quantities of flour, beef, pork, wool, hemp, and tobacco, which will pass over this road from the west, and particularly in view of the exportation of American produce to foreign markets. As it is now, it actually costs the planter, residing within fifty miles of Richmond more to get a hogshead of tobacco to that market, than it does the planter on the banks of the Ohio, in western Virginia, who ships his tobacco via New Orleans, or sends it up the Ohio via Pittsburg and Baltimore.

Richmond and Norfolk will both become great commercial cities, and the centres of a large foreign trade. This is the true view which a Virginian, proud of the ancient renown of the Old Dominion, should take of this grand work. Disdaining a condition of commercial dependence upon the northern cities it should be his pride to contemplate the unbounded resources of his native state, and his grand aim to build up on the waters of the noble Chesapeake marts of commerce worthy of the commonwealth.

If Virginia would be true to herself, Richmond and Norfolk would soon become powerful rivals to the other Atlantic cities, for the trade and commerce of the Mississippi valley. As a convenient market for the products of that vast region and an *entrepot* for its foreign merchandize, Norfolk would possess greater advantages than any other Atlantic city. A Virginian should calculate the distance from Cincinnati the city of the west, not to New York, but to Norfolk and Richmond. Assuming for the present Cincinnati and New York as the great centres of trade in the east and west, the distance between them by the great lines of communication already opened or in contemplation, will be seen by the following statement:

	Miles.
From Cincinnati to Guyandotte	170
thence by Richmond and Ohio railroad to Richmond	400
Richmond to Washington	120
Washington to Baltimore	38
Baltimore to Philadelphia	96
Philadelphia to New York	86— 910
From Cincinnati to Wheeling	386
Wheeling to Baltimore by Baltimore and Ohio railroad	371
Baltimore to New York	182— 939
From Cincinnati to Pittsburg	482
Pittsburg by Pennsylvania line to Philadelphia	395
Philadelphia to New York	86— 963
From Cincinnati to Portsmouth	115
thence by Ohio and Erie canal to Cleveland	309
Cleveland to Buffalo	191
thence to Albany by Erie canal	363
thence to New York	148—1126
From Cincinnati to Cleveland	424
thence to Dunkirk	136
thence by New York and Erie railroad to New York	470—1050
From Cincinnati to Richmond	570
thence to Norfolk	130— 700

So that the Richmond and Ohio railroad will open the shortest route between Cincinnati and New York. Besides it has the preference in being the most southerly route and free from obstructions of ice and snow—avoids the risk of lake navigation—and taps the Ohio so low as to obviate the difficulties of shoals and low water in that river.

But the importance of this great thoroughfare as an outlet for the products of the Mississippi valley will appear in a stronger light when we compare the distance from Cincinnati to Norfolk with that from the former place to the other Atlantic cities.

By the above statement it will be seen that the distance from Cincinnati to New York upon the different routes is as follows:

By Guyandotte and Richmond	910
By Wheeling and Baltimore	939
By Pittsburg and Philadelphia	963
By Cleveland and New York, Erie railroad	1050
By Cleveland and New York, Erie canal	1126

Showing a difference between Richmond route and the others of from 29 to 216 miles.

From Cincinnati to Philadelphia, the difference is by the Pittsburg route	877
By the Wheeling route	853
From Cincinnati to Baltimore	757
From Cincinnati to Norfolk	700

Thus it will be seen that the shortest outlet from Cincinnati to the Atlantic cities, is to Norfolk. That this distance is shorter than to New York by 210 to 426 miles, say 318
Less than to Philadelphia by 153 to 177 miles, say 165
Less than to Baltimore by 57

Now if we add the distance from the two last cities to the capes, Norfolk will have the advantage over Philadelphia by 357 miles, and over Baltimore by 257 miles.

But we may fairly institute a comparison between Richmond and the other cities in reference to their distance from Cincinnati, and we shall find that Richmond has the advantage over New York by 340 to 556 miles, say 448 miles; over Philadelphia by 283 to 307 miles, say 295 miles; and Baltimore by 187 miles.

From this hasty survey of Virginia as connected with her great central improvement, the mind can hardly comprehend the future greatness and prosperity of the Old Dominion.

With the experience of the last twenty years in which the other states have been schooled, she can construct this great work at a far less expense than works of a similar kind have cost. All the materials for the road are found in abundance along the

contemplated route, and as has been before remarked the grade over the Alleghenies will be easier than at any more northerly point.

In view of all this, it is difficult to suppress a feeling of astonishment that the leading men of Virginia delay the construction of this great work. It is impossible however that it should much longer be delayed. An empire in territory in the very heart of the republic, Virginia must soon yield to the pressure of causes from within and without, and enter upon a liberal system of internal improvement.

The unsettled state of our foreign relations, and the excitement of the public mind in relation to the Mexican war and the tariff policy, have hitherto retarded action under the late charter granted for the Richmond and Ohio railroad. Yet the work will go forward, and then, and not till then, will Virginia assume her former rank among the states of the Union.

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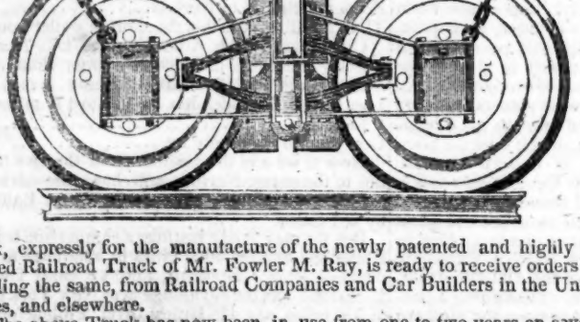
or by their Agent, ROBT. NICHOLS,
28tf 79 Water St., New York.

THE SUBSCRIBERS, AGENTS, FOR the sale of
Codorus,
Glendon,
Spring Mill and
Valley,
} Pig Iron.
Have now a supply, and respectfully solicit the patronage of persons engaged in the making of Machinery, for which purpose the above makes of Pig Iron are particularly adapted.

They are also sole Agents for Watson's celebrated Fire Bricks and prepared Kaolin or Fire Clay, orders for which are promptly supplied.
SAM'L. KIMBER, & CO.,
59 North Wharves,
Jan. 14, 1846. [1y4] *Philadelphia, Pa.*

RAY'S EQALIZING RAILWAY TRUCK.—THE SUBSCRIber having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling-mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East river, (of which firm the subscriber was late a partner) under the immediat supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846. W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co., have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the bes and most economical truck now in use.
[Signed,] WILLIAM ROE, Sup't of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845. [Signed,] G. A. NICOLL,
Sup,t Transportation, etc., Philadelphia and Reading Railroad.

To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction. I have no hesitation in saying that it is the simplest and most economical truck now in use. [Signed,] T. L. SMITH,
Jersey City, November 4, 1845. N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car.

For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.
Long Island Railroad Depot, Jamaica November 12, 1845. } [Signed,] JOHN LEACH,
1y19 Sup't Motive Power.

RICH & CO'S IMPROVED PATENT SALAMANDER SAFES.

Warranted free from dampness, as well as fireand thief proof.

Particular attention is invited to the following certificates, which speak for themselves:

TEST No. 10.

Certificate from Mr. Silas C. Field, of Vicksburgh, Mississippi.

On the morning of the 14th ult., the store owned and occupied by me in this city, was, with its contents, entirely consumed by fire. My stock of goods consisted of oil, rosin, lard, pork, sugar, molasses, liquors, and other articles of a combustible nature, in the midst of which was one of Rich's Improved Patent Salamander Safes, which I purchased last October of Mr. Isaac Bridge, New Orleans, and which contained my books and papers. This safe was red hot, and did not cool sufficiently to be opened until 16 hours after it was taken from the ruins. At the expiration of that time it was unlocked, when its contents proved to be entirely uninjured, and not even discolored. I deem this test sufficient to show that the high reputation enjoyed by Rich's Safes is well merited. S. C. FIELD.

Vicksburgh, Miss., March 9th, 1846.

Certificate from Judge Battaile, of Benton, Mississippi.

In October last I purchased one of Rich's Improved Salamander Safes, which was in the fire at the burning of my law office, and several adjoining buildings in this place, on the 17th of November last, at about half-past one o'clock A. M. of that day. The building was entirely consumed; and I take pleasure in stating that my papers in said safe were preserved without injury. A receipt book which was in said safe, had the glue drawn out of its leather back by the heat, and the back broken; but the leaves of the book, and the writing thereon, were entirely uninjured; and some of the writing which was of blue ink, was also left wholly uneffaced and not in the least faded. Said safe was by the fire heated perfectly red hot, and I do not hesitate to say, that said safe is a perfect security against fire. But the safe tumbled over during the fire, and being heated red hot, the outer sheeting of the door became pressed in, and the bolts of the lock bent, so that it could not be unlocked, and I had to have it broken open. JOHN BATTAILE.

Benton, Miss., December 27,1845.

Still other Tests in the Great Fire of July 19, 1845.

The undersigned purchased of A. S. Martin, No. 138½ Water street, one of Rich's Improved Patent Salamander Safes, which was in our store, No. 54 Exchange place. The store was entirely consumed in the great conflagration on the morning of the 19th inst. The safe was taken from the ruins 52 hours after, and on opening it, the books and papers were found entirely uninjured by fire, and only slightly wet—the leather on some of the books was parched by the extreme heat. RICHARDS & CRONKRITE.

New York, 21st July, 1845.

One of Rich's Improved Salamander Safes, which I purchased on the 2d of June last of A. S. Marvin, 138½ Water street, agent for the manufacturer, was exposed to the most intense heat during the late dreadful conflagration. The store which I occupied, No. 46 Broad street, was entirely consumed; the safe fell from the 2d story, about 15 feet, into the cellar, and remained there 14 hours, and when found, I am told, and from its appearance afterwards, should judge that it had been heated to a red heat. On opening it, the books and papers were found not to have been touched by fire. I deem this ordeal sufficient to confirm fully the reputation that Rich's safe has already obtained for preserving its contents against all hazards. (Signed,)

WM. BLOODGOOD.

New York, 21st July, 1845.

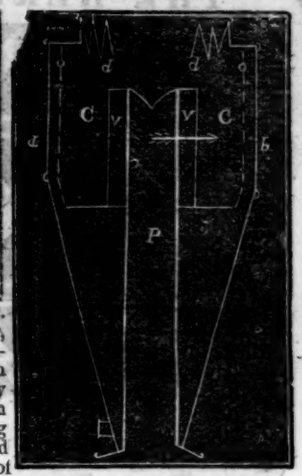
The above safes are finished in the neatest manner, and can be made to order at short notice, of any size and pattern, and fitted to contain plate, jewelry, etc. Prices from $50 to $500 each. For sale by

A. S. MARVIN, General Agent,
138½ Water st., N. Y.

Also by Isaac Bridge 76 Magazine street, New Orleans.

Also by Lewis M Hatch, 120 Meeting street Charleston, S. C. 16 tf

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.



TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

R. L. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendant Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendant Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city or to Hinckly & Drury, Boston, will be promptly executed. FRENCH & BAIRD.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. *Philadelphia, Pa., April* 6, 1844.

*** The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent.*

Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed beinglarge, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
a15 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, *Agent.*

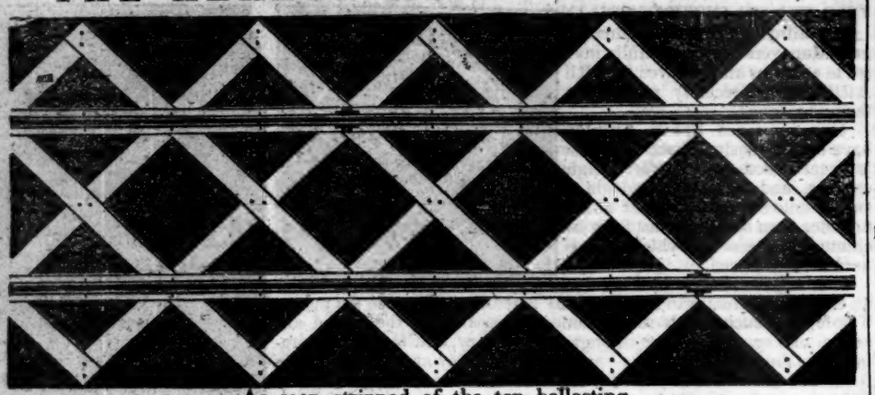
Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

*** Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja15

DAVENPORT & BRIDGES CONTINUE to Manufacture to Order, at their Works, in Cambridgeport, Mass., Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any patterr and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country.

Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes. 1y1

THE HERRON RAILWAY TRACK,



As seen stripped of the top ballasting

THE UNDERSIGNED RESPECTFULLY invites the attention of Engineers, and Railroad Companies, to some highly important improvements he has recently made in the Herron system of Railway structure. These improvements enable him to effect a very large reduction in the quantity of Timber, and cost of construction, without impairing the strength of the Track, or its powers of resisting frost, while they secure additional features of excellence in the Drainage and facility of making Repairs.

The above cut represents the "Herron Track" as it is laid on the Philadelphia and Reading, and on the Baltimore and Susquehanna Railroads. The intersection of the sills of the trellis are 5 feet from centre to centre, while in the new construction they are only 2½ feet. This renders the string piece unnecessary, thus removing the only objectionable feature found in the Track.

The result of experience has proved that all Tracks constructed with longitudinal timbers, such as mud sills, and more especially, the continuous bearing string pieces retain the rain water that falls between the Rails, which, being thus confined, settles along those timbers, and accumulating in quantity flows rapidly along them on the descending grades, washing out the earth from under the timber, and frequently causing large breaches in the embankments of the road. Whereas all water intercepted by the oblique sills of the trellis, is discharged immediately into the side ditches.

In the 5 foot plan, the Track occupies a Road bed nearly 11 feet wide, while the new construction takes but 8 feet; the timber being more concentrated under the Rails. A block of hard wood, about 2 feet long and 15 inches wide, is introduced into a square of the trellis for the purpose of giving an additional, and effectual support to the joints of the Rails, which rest upon it. Should these joint blocks become chafed and worn by the working, and imbedding of the chairs, as is now the case on all Railroads, they can be readily replaced without any derangement of the timbers less liable to wear.

The following is a general estimate of its cost near the seaboard. In the interior it will be considerably less.

ESTIMATE OF THE PROBABLE COST OF ONE MILE.

4,224 Timbers, 11 ft. long, 3 x 6 inches = 68,696 ft. b.m., at $10 =	$686 96
587 Oak joint blocks 2 ft. x 3 x 15 in. = 4,403 ft. b.m., at $13 =	57 24
13,000 Spikes = 2,250 lbs. at 4½ cts	101 25
Workmanship free of patent charge	600 00
Cost of one mile including the laying of the Rail	$1,445 45

He has made other important improvements, which will be shown in properly proportioned models, that give a much better idea of the great strength of the Track than a drawing will do.

Sales of the Patent right to all the distant States will be made on liberal terms.

JAMES HERRON.
Civil Engineer and Patentee.
No. 277 South Tenth St., Philadelphia. 33tf

ENGLISH ATENT WIRE ROPES—FOR THE USE OF MINES, RAILWAYS, ETC.—for sale or imported to order by the subscriber.

These Ropes are manufactured on an entirely different principle from any other, and are now almost exclusively used in the collieries and on the railways in Great Britain, where they are considered to be greatly superior to hempen ones, or iron chains, as regards safety, durability and economy. The plan upon which they are made effectually secures them from corrosion in the interior, as well as the exterior of the rope, and gives a greater compactness and elasticity than is found in any other manufacture.

Many of these ropes have been in constant operation in the different mines in England, and on the Blackwall and other inclined planes, for three and four years, and are still in good condition.

They have been applied to almost every purpose for which hempen ropes have been used—mines, heavy cranes, standing rigging, window cords, lightning conductors, signal halyards, tiller ropes, etc. Reference is made to the annexed statement for the relative strength and size. Testimonials from the most eminent engineers in England can be shown as to their efficiency, and any additional information required respecting the different descriptions and application will be given by

ALFRED L. KEMP,
75 Broad street, New York, sole agent in the United States.

Statement of Trial made at the Woolwich Royal Dock Yard, of the Patent Wire Ropes, as compared with Hempen Ropes and Iron Chains of the same strength.—October, 1841.

WIRE ROPES.				HEMPEN ROPES.			CHAINS.		STRENGTH
Wire gauge number.	Circumference of rope.	Weight per fathom.		Circumference of rope.	Weight per fathom.		Weight per fathom.	Diameter of iron.	Tons.
	INCH.	LBS.	OZ.	INCH.	LBS.	OZ.	LBS.	INCH.	
14	4½	13	5	10	24	–	50	15-16	20
13	3¾	8	3	8¼	16	–	27	11-16	13½
14	3½	6	11	7½	12	8	17	9-16	10½
15	2¾	5	2	6¼	9	4	13½	1-2	7½
16	2⅜	4	3	6	8	8	10½	7-16	7

N.B. The working load, with a perpendicular lift, may be taken at 6 cwt. for every lb. weight per fathom, so that a rope weighing 5 lbs. per fathom would safely lift 3360 lbs., and so on in proportion. 1y24

ENGINEERS' AND SURVEYERS'
INSTRUMENTS MADE BY
EDMUND DRAPER,
Surviving partner of
STANCLIFFE & DRAPER.

No 23 Pear street, below Walnut,
1y10 near Third, Philadelphia.

LAP—WELDED
WROUGHT IRON TUBES
FOR
TUBULAR BOILERS,
FROM 1 1-4 TO 6 INCHES DIAMETER,
and
ANY LENGTH, NOT EXCEEDING 17 FEET.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,
Patentee.
1y25 28 Platt street, New York.

ENGINEERS and MACHINISTS.

THOMAS PROSSER, 28 Platt St. N. Y. (*See Adv.*)
J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (*See Adv.*)
TROY IRON AND NAIL FACTORY, H. Burden, Agent. (*See Adv.*)
ROGERS, KETCHUM & GROSVENOR, Patterson, N. J. (*See Adv.*)
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (*See Adv.*)
NORRIS, BROTHERS, Philadelphia Pa. (*See adv.*)
FRENCH & BAIRD, Philadelphia. (*See Adv.*)
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (*See Adv.*)
ROSS WINANS, Baltimore, Md.
CYRUS ALGER & Co., South Boston Iron Co.
SETH ADAMS, Engineer, South Boston.
STILLMAN, ALLEN & Co., N. Y.
JAS. P. ALLAIRE, N. Y.
PHŒNIX FOUNDRY, N. Y.
ANDREW MENEELY, West Troy.
JOHN F. STARR, Philadelphia, Pa.
MERRICK & TOWNE, do.
HINCKLEY & DRURY, Boston.
C. C. ALGER, Stockbridge Iron Works Stockbridge, Mass.

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

RATES OF ADVERTISING.

One page per annum	$125 00
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One square " "	1 00
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